Euratom at the Crossroads

Anna Södersten

Thesis submitted for assessment with a view to obtaining
the degree of Doctor of Laws of the European University Institute

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The dissertation has been submitted for language correction.

To my parents

Acknowledgements

Writing a dissertation is a long and difficult intellectual journey. In some respects, it is similar to 'Vasaloppet', the annual 90 km long cross-country skiing race my father and I have taken part in for many years. In order to reach the finish line in Mora, extensive physical preparations are required. Of course, one also needs the right equipment. But while for each kilometre of the Vasaloppet there is a placard telling you how many kilometres remain, one does not always receive the same kind of mental signposts when writing a dissertation; the number of kilometres left is constantly changing and, sometimes, the finish line seems to disappear entirely. The geography (or perhaps the geology!) is also constantly changing. New hills to tackle are introduced, but sometimes a welcome downhill will emerge.

Many people and institutions have helped me along my journey. First of all, I would like to thank my supervisor, Prof. Marise Cremona, for the advice, patient guidance, and encouragement that she has offered me over the last few years. I am grateful to Loïc Azoulai, Giorgio Monti, Dennis Patterson, and Hsien-Li Tan, who read drafts, for their beneficial advice and criticism; and to Antonina Bakardjieva, Hedvig Bernitz, Ulf Bernitz, Carl Fredrik Bergström, Maria Bergström, Alan Dashwood, Joris Larik, Charlotta Lindsjö, Hans Micklitz, Grégoire Mallard, Inger Österdahl, Jane Reichel, J.H.H. Weiler, and Anna Wetter, who, in various ways, all made it possible to bring the dissertation to completion. I am also grateful to the Euratom officials whom I interviewed in Luxembourg; the NEA's Nuclear Law Summer School in Montpellier, which gave me invaluable insights into nuclear law; the Stockholm Centre for Commercial Law and the Swedish Institute for European Policy Studies for providing me with office space during my visits to Sweden; and, finally, the Swedish Research Council and the European University Institute for their financial support.

Anna Södersten

Abstract

This dissertation considers the relationship between the Euratom Treaty and the two EU Treaties (the TEU and TFEU). It examines the legal implications of the continued separate existence of the Euratom within the EU. The aim is to show that either the Euratom ought to be kept separate from the Union or, logically, brought into the EU framework. The first part of the dissertation considers 'structural' issues. It examines the links between the treaties and it explores the question of whether the EU and the Euratom belong to the same legal regime or whether they are better conceptualised as separate legal regimes. The second part maps out four broad policy areas that will illuminate the relationship between the EU and the Euratom: (i) nuclear industrial development; (ii) nuclear safety; (iii) radiation protection; and (iv) non-proliferation. Gaps and overlaps are identified and the Euratom's added value is discussed. The dissertation shows that the Euratom is very close to the EU, although an anomaly. It also demonstrates that the relationship between the Treaties is not always a coherent one. It concludes that given the expansion of the EU competences, there is no longer a need for the Euratom as a separate treaty.

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INTRODUCTION

This dissertation considers fundamental issues in EU law. The particular focus is the relationship between the European Atomic Energy Community Treaty (the Euratom Treaty) and the two core EU Treaties – the Treaty on European Union (TEU) and the Treaty on the Functioning of the European Union (TFEU). To most EU scholars, the Euratom is *terra incognita*. Yet, the Euratom Treaty is one of the EU's founding treaties[1]; moreover, it is still frequently applied. This dissertation, however, is neither about nuclear law nor about the Euratom *per se*. Rather, it is principally concerned with the *relationship* between the treaties, as it is in this relationship – and all it entails – that one confronts some of the most fundamental issues in EU law.

The Euratom Treaty was signed in Rome in 1957, together with the European Economic Community Treaty (EEC Treaty). These two 'Rome Treaties' entered into force in 1958. Both were concluded for an unlimited period, and they were adopted by the same Member States. The EEC Treaty and the Euratom Treaty were very similar; many provisions were even identical. But there were also significant differences – differences that did not only concern the content. This dissertation deals with the transformation of this relationship.

The principal task of Euratom is to create 'the conditions necessary for the speedy establishment and growth of nuclear industries' (Article 1). This reflects the high expectations for nuclear energy in the 1950s. As was often said, nuclear power would be 'too cheap to meter'.[2] Some believed it would even trigger an industrial revolution. In light of these expectations, it is perhaps unsurprising that Jean Monnet, the architect behind European unity, saw the Euratom Treaty as the main instrument for integration.[3]

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[1] See the pre-Lisbon version of Article 1(3) TEU, which stated: 'The Union shall be founded on the European Communities.' For a discussion, see Chapter 2, 'The Structural Relationship'.
[2] Lewis L. Strauss (Chairman of the U.S. Atomic Energy Commission), Speech to the National Association of Science Writers, New York City, September 16th, 1954 [New York Times, September 17, 1954].
[3] This was also the view of the six original Member States and of John Foster Dulles, the US Secretary of State, see Jonathan E. Helmreich, 'The United States and the Formation of Euratom'

Soon after the Treaty had come into force, however, it became clear that the Euratom did not live up to the early expectations. Indeed, the Euratom has only played a minor role in the European integration process.[4] Over the years there have been some vociferous calls not only to amend the Treaty but also for its abolition. Yet, today the Treaty is still in force, moreover, it is largely unamended since its adoption.

The Lisbon Treaty came into force in 2009. One of the major changes it effected was the removal of the pillar structure and the replacement of the EC with the EU. All policy areas were integrated into one European Union.[5] Some years earlier, the 2001 Laeken Declaration had called for unity and simplification of the treaty architecture. The Lisbon Treaty, however, never completely achieved this. There are still two 'EU Treaties': the TEU and TFEU.[6] There is also the Euratom Treaty, a separate treaty, which establishes a Community with a separate legal personality.[7]

The major research question of this dissertation is: *What are the legal implications of the continued separate existence of the Euratom within the EU?* The aim is to establish whether the Euratom ought to be kept separate from the Union or brought into the EU framework. One important sub-question is whether it is still relevant that one of the EU's founding treaties has the promotion of the nuclear industry as its main objective. A closely related question is whether the Euratom has lost its *raison d'etre*.

Why it is Relevant

In academic circles, nuclear energy and Euratom are seldom analysed or addressed alongside the EU's general energy policy. One reason is that nuclear energy today is regarded as an insignificant matter. This is a misconception. A

(1991) 15(3) *Diplomatic History* 393, 400. See also Lawrence Scheinman, 'Euratom: Nuclear Integration in Europe' (1967) 36 *International Conciliation* 8.

[4] See, for example, Christian Deubner, 'The Expansion of West German Capital and the Founding of Euratom' (1979) 33 *International Organization* 203–28, at 223.

[5] Even though the CFSP area is still 'subject to specific rules and procedures', Article 24 TEU.

[6] There is no hierarchy between them; they have 'the same legal value' (Article 1(3) TEU and Article 1.2 TFEU). This thesis refers to the TEU and TFEU as the 'EU Treaties'. When using this term, the Euratom Treaty is not included.

[7] In 2002, the Coal and Steel Treaty was repealed. The Euratom continued to exist; it had been adopted for an unlimited period. There were now three founding treaties (the EU Treaty, the EC Treaty and the Euratom Treaty), two Communities (the EC and the Euratom), and one Union.

third of the electricity consumed in the EU comes from nuclear energy. There are 132 reactors in 14 Member States. Prior to Fukushima, it was widely recognised that nuclear energy was enjoying a 'renaissance'. The renewed interest in nuclear energy was prompted by concerns about climate change[8] and a secure energy supply.[9] But perhaps the main driver that put nuclear power back on the political agenda was the increasing energy demand.[10] Indeed, the renewed interest is seen all over the world: in Europe, the United States, Russia, the emerging economies of China, India, and Brazil, and many developing countries. New nuclear power plants are being planned or built. Some countries are reviewing the possibilities to extend the life of existing, old reactors. Yet, the nuclear renaissance has its sceptics who argue that the economic costs to build new plants are so high that nuclear energy is no longer economically feasible. Safety concerns after the Fukushima accident and concerns over how to deal with nuclear waste contribute to this scepticism. While there might not be a nuclear renaissance in the Western world, there are no clear signs that the interest in nuclear energy will fade in less-developed parts of the world.

The EU Member States are divided on the use of nuclear energy. The Fukushima disaster in 2011 seems to have accentuated these divisions. Indeed, it is up to each Member State to decide whether to produce nuclear power. As the Lisbon Treaty clarifies, the Member States decide on their own energy mix. However, questions related to the use of nuclear energy will remain on the table for the foreseeable future.

Among contemporary EU legal scholars, the Euratom Treaty is largely seen as irrelevant. This view is problematic. The Treaty is increasingly used as a legal

[8] Nuclear energy yields very low carbon emissions and it is therefore an attractive alternative to fossil fuels. But nuclear power is also vulnerable to climate change; nuclear power plants are often situated near coastlines, as plenty of water is needed to cool the reactors. As environmental scientists argue, climate change causes sea levels to rise, shoreline erosion, coastal storms, floods, and heat waves. See Natalie Kopytko and John Perkins, 'Climate Change, Nuclear Power, and the Adaptation–Mitigation Dilemma' (2011) 39 *Energy Policy* 318–33.

[9] The argument is that nuclear energy can make countries less dependent on oil and gas from volatile parts of the world. Of course, there is nothing new with this argument; it has been used since the 1950s. See, for example, the 'Report by the Three Wise Men on Euratom': Louis Armand, Franz Etzel and Francesco Giordani, *A Target for Euratom,* Report submitted by Mr. Louis Armand, Mr. Franz Etzel and Mr. Francesco Giordani at the request of the governments of Belgium, France, German Federal Republic, Italy, Luxembourg and the Netherlands*,* 4 May 1957.

[10] See, for example, International Energy Agency, Key World Energy Statistics 2012, available at www.iae.org.

basis for legislation. Paradoxically, the Chernobyl accident in 1986 – which had a widespread transboundary effect in Europe – seems to have been the 'turning point' for the Euratom. Following the accident, several instruments were adopted on the basis of the Euratom Treaty. The Euratom has also acceded to several international conventions, it has concluded many bilateral agreements, and it constitutes the legal basis for financial and technical support to third states. This development has gone hand in hand with the evolution of international nuclear law, which was set up as a response to the Chernobyl accident.

Methodological Considerations

Throughout this dissertation, the discussion focuses on the interaction between the Euratom Treaty and the EU Treaties. The dissertation is divided into two main parts. Part One explores 'structural' issues. It begins with a theoretical discussion of whether the Euratom constitutes a separate legal regime.[11] In particular, it asks on what grounds the Euratom can be said to be separate, and in what ways? What connects the EU and the Euratom? These questions frame the subsequent discussion.

Part Two maps out the substantive law of the Euratom. Here the dissertation takes a descriptive and analytical approach. Let us start with the descriptive approach. The dissertation examines a range of rather closely related questions. The first set concerns the type of actions adopted on the basis of the Euratom Treaty. Is it largely a question of harmonising measures or is the scope of Euratom power more limited? Are the activities rather supplementing, coordinating, and supporting the Member States' activities? Are there special rules and procedures that are only applied within the Euratom? Are there differences between possible competences and legislation enacted? In other words, although the Treaty provides for a rather broad scope of competence, is the adopted legislation soft? Another closely related set of questions concerns the form of measures. Are the instruments under the Euratom Treaty the same

[11] In this dissertation, I will use the terms 'legal regime' and 'legal order' interchangeably.

as under the EU Treaties (i.e., are there regulations, directives, and decisions etc.)? What institutions are involved? How are the decisions made? A comparison will be made to legislation and measures adopted with the EU Treaties as a legal basis.

In addition, some 'gaps' and 'overlaps' will be identified. A 'gap' could be defined as an instance where positive law fails to provide an 'immediate' solution to a legal question. How shall we deal with situations where only the EU Treaties, but not the Euratom Treaty, contain rules in a specific area that appears to come within the scope of Euratom? Can we apply the EU Treaties instead? In other words, if the Euratom Treaty is silent (i.e., there is a 'gap' in that Treaty), can we use the EU Treaties to 'fill the gap'? Further, how shall we deal with situations where there are provisions in both the Euratom Treaty and the EU Treaties, but the provisions in the EU Treaties are more 'comprehensive' than those of the Euratom Treaty?[12] Could we fill such 'gaps' in the Euratom Treaty by using the EU Treaty provisions? And how do we apply Article 203 (the corresponding provision to Article 352 TFEU), the Euratom's 'flexibility clause', when it comes to these 'gaps'?

It should be added that from the Treaty founders' point of view, a gap might be intentional or unintentional. The EU institutions are 'filling' gaps by interpreting the Treaties broadly. But the EU institutions have to be cautious. When filling gaps, the Court of Justice of the European Union has to avoid undermining its judicial credibility. The law-making institutions have to be careful when adopting legislation if an express legal basis does not exist so as not to trespass on their legislative powers.

When examining the Euratom and EU provisions, we will also identify some 'overlaps' between the treaties. An overlap occurs when there are rules in both the Euratom Treaty and the EU Treaties that could regulate the same substantive area. This could be a matter of choice between legal bases (i.e., the application of

[12] One example is Article 93 Euratom, which provides for the free movement of nuclear goods. It prohibits 'charges having equivalent effect' to 'customs duties', but not 'measures having equivalent effect' to a 'quantitative restriction'. Does this omission imply that 'measures having equivalent effect' to quantitative restrictions are not prohibited under the Euratom Treaty? These questions will be addressed in more detail in Chapter 3 'Nuclear Industrial Development'.

legal bases for the adoption of secondary legislation), but also a choice in the application of detailed rules in primary law. Overlaps are problematic where there are contradictions, and contradictions may occur in both substance and procedure. A contradiction in procedure occurs, for example, if a legal basis in the EU Treaties provides for qualified majority voting in the Council, while the same issue could be dealt with under the Euratom Treaty, which provides for unanimity.

The CJEU has explained how the choice of legal basis is to be made under the TFEU. The choice 'must rest on objective factors which are amenable to judicial review', including in particular 'the aim and the content of the measure'.[13] If more than one provision fits the content or aim, the provision in the 'centre of gravity' of the legal act shall prevail, i.e., the predominant or main component of the legal act. When it is not possible to identify such a main component (because two or more components are 'indissociably linked'), it might be necessary to use a dual (or multiple) legal basis.[14] But a dual legal basis can only apply if the decision-making procedures are compatible. They are not compatible if one legal basis stipulates unanimity in the Council and the other stipulates that the decision is to be taken by majority. If different legal bases are stipulating different roles for the European Parliament (e.g., ordinary legislative procedure or a consultation procedure), then the legal basis with the 'most democratic' procedure will take precedence (here, the ordinary legislative procedure).[15] Can this scheme also apply under the Euratom Treaty? And, more importantly for our purposes, can it apply to cross-treaty situations?

While Part One of this dissertation focuses on structural issues and examines how to deal with gaps and overlaps *in abstracto* and from a theoretical perspective, Part Two focuses on substantive issues, describing where such gaps and overlaps (and contradictions) may occur. Part Two also explores some areas

[13] Opinion 2/2000 [2001] ECR I-9713, para 22; Case C-268/94, *Portugal* v. *Council* [1996] ECR I-6177, para 22; Case C-269/97, *Commission* v. *Council* [2000] ECR I-2257, para 43; and Case C-36/98, *Spain* v. *Council* [2001] ECR I-779, para 58.
[14] Opinion 2/2000 [2001] ECR I-9713, para 23.
[15] See Case C-155/07, *Parliament* v. *Council* [2008] ECR I-8103, paras 73–85; Case C-300/89 *Commission* v. *Council* [1991] ECR I-2867, para 20; and Case 138/79 *Roquette Frères v. Council* [1980] ECR 3333, para 33.

without a cross-treaty dimension (at least not an obvious one), because they can enlighten us on the Euratom's added value. While some treaty provisions are examined in detail, other treaty provisions are examined in a less detailed manner, because they have no (or only minor) significance, i.e., they have never (or seldom) been applied.

As mentioned, Part Two not only takes a descriptive approach, but also an analytical approach. The key issue here is whether it matters which treaty is being applied, and what difference it makes. What is the value added of using the Euratom Treaty? In answering this question, the dissertation takes two perspectives: an integration perspective and a Member State perspective.

The integration perspective poses the following question: Is it better from the point of view of integration to use the EU framework when one could use the Euratom? Integration here primarily means 'nuclear integration', i.e., integration in any of the policy areas under the Euratom. This includes the creation of a nuclear common (internal) market. As often mentioned in the literature and by the ECJ, the choice of legal basis can have constitutional significance since it decides the scope of influence of the EU institutions in the law-making process. Indeed, the Euratom Treaty provides a very limited role for the European Parliament.[16]

The Member State perspective poses the following question: What are the implications for the Member States' use of the Euratom as opposed to the EU Treaties? As already mentioned, we will examine to what extent (and why) different procedures are used within the Euratom. The Euratom procedures may be different because the special nature of nuclear energy requires this. Or, the Euratom may have different procedures simply because it is 'frozen' in time, i.e., because substantive amendments have never been achieved. We will also enquire into whether this is a deliberate choice. The Member States might find some advantages in using the Euratom because they see it as a greater protection for their sovereignty.

[16] The ordinary legislative procedure now applies to the Euratom Treaty, but not a single one of the Euratom's legal bases identifies the ordinary legislative procedure. For a discussion, see Chapter 2, 'The Structural Relationship'.

The choice between the Euratom Treaty and the EU Treaties might also have significance for the type of instrument used. An important aspect is institutional choices. What are the institutions saying about the choices? Is there a path dependency in using either of the treaties? Further, are the choices of legal basis coherent if there is a possibility to choose either the Euratom Treaty or the EU Treaties (that is, in case of an overlap)? Is the choice of legal basis legally or politically grounded? And what are the implications of such choice?

In addition to this discussion of the choice of legal basis, the purpose of examining substantive areas is to discern how the Euratom acquis has evolved in relation to the EU acquis. Has the Euratom become closer to the EU, or has it moved in a different direction? Are they converging, diverging, or taking a parallel path? What are the implications of these directions of the acquis? Convergence may mean that the Court can transfer constitutional principles between the Treaties with more ease than if there was divergence. But convergence may also imply one 'swallowing up' the other. Is there any requirement of coherence in the relationship between the EU and the Euratom? The divergence thesis poses similar questions. A third possibility is a parallel evolution of the EU and Euratom acquis; while there is some evidence of convergence, there is also some evidence of divergence of the acquis.

The dissertation also examines the external role played by Euratom. This is an important aspect, because the Euratom has a strong framework for external relations, stronger than the original EEC Treaty. One of Euratom's principal tasks is 'to contribute […] *to the development of relations with the other countries* by creating the conditions necessary for the speedy establishment and growth of nuclear industries' (Article 1).[17] External relations will be dealt with 'across the board'; i.e., they will not be dealt with separately, but seen as an important part of the substantive areas examined.

[17] Article 2.h states that the Euratom shall 'establish with other countries and international organisations such relations as will foster progress in the peaceful uses of nuclear energy'. The Treaty preamble also points out that the Member States desire to 'associate other countries with their work and to cooperate with international organisations concerned with the peaceful development of atomic energy'. The Treaty devotes a whole chapter to External Relations (Chapter 10, Article 101–106). There are also other Treaty provisions that deal with external relations, for example, Article 199–201, 'relations with international organisations'.

The dissertation will explore some of the many international agreements to which the Euratom is a party.[18] There are three main types of agreements: mixed agreements where both the Euratom and the Member States are parties; mixed agreements, which are 'mixed' in the sense that both the Euratom and the EC (or now, the EU) are parties; and 'Euratom agreements', where only the Euratom has signed an international agreement with a third party (so-called Community-only agreements). Should the Euratom and the EU be regarded as separate actors or should the Euratom rather be characterised as a 'specialized agency', i.e., is it 'hiding' behind the EU? Or, does the Euratom only enjoy a formal meaning, with no real practical consequences? For a full understanding of the Euratom's external as well as internal role, some international law instruments shall also be examined.[19]

Material

There has been surprisingly little written about the Euratom Treaty. Most of the literature is from the 1950s and the 1960s, and not much of the literature is legal. While the early literature was optimistic about Euratom, the literature from the mid-1960s onwards focused on the 'Euratom crisis',[20] and later, in the 1970s, on the 'Euratom as a failure'.[21] Much of this early literature came from the United States, probably because of an agreement the Euratom had concluded with the United States. Let us also not forget that the Euratom was initially deemed as having greater potential than the more uncertain Economic Common Market. From the 1980s onwards, the Euratom Treaty started to attract the attention of

[18] There are roughly 98 international agreements: 75 of them are bilateral, and 23 of them are multilateral.

[19] As Johnston and Block point out, 'a full understanding of this area also requires an appreciation of the international legal context: there exist various treaties and international organizations which play a key role in the development of various standards applicable to the use of nuclear energy'. Angus Johnston and Guy Block, *EU Energy Law* (Oxford: Oxford University Press, 2012), p. 378.

[20] In 1967, Scheinman points out: 'Euratom is institutionally almost identical with its sister organization in Brussels, the EEC, and it has had to plow through the same turbulent seas. Unlike the EEC, however, Euratom has less successfully weathered the storm. It is commonplace these days to speak of the "Euratom crisis", and to view that crisis as more far-reaching and ominous than the stress that has characterized all of the supranational communities of Europe during the past few years'. Scheinman, 'Euratom: Nuclear Integration in Europe', 5.

[21] Droutman writes that the 'Euratom… has been a failure on all fronts'. See Lawrence Julian Droutman, *Nuclear Integration: The Failure of Euratom* (Ann Arbor: UMI, 1982)

European scholars. Most of that literature is published in French and German, and very little in the English language. In recent years there has been a small but emerging literature on the Euratom. The predominant approach, however, is 'nuclear law' or an 'energy law' perspective. Few take the approach of EU law, and very few examine the Euratom from a constitutional/structural perspective.[22] The latter approach is the focus of this dissertation. There is no other systematic academic overview of the Euratom's powers, and how those powers relate to the EU from a constitutional point of view.[23] As such, this dissertation has no equal.

Due to the relative lack of literature on the Euratom Treaty, primary material is an important source for this dissertation. There are roughly 30 cases on the Euratom Treaty, but it is very difficult to decide what exactly counts as a case 'on' the Treaty; sometimes an issue is only very briefly or incidentally addressed. Other cases do not even mention the Treaty, but they might still have implications for the relationship between the Euratom and the EU. Other cases are directly 'on' the Euratom Treaty, but they do not give much information on the treaty relationship. Further, among these 30 or so cases, the whole spectrum of types of proceedings is represented: infringement procedures, Rulings and Opinions, actions for annulment, actions for failure to act, applications for compensation based on non-contractual liability, appeals on points of law, and preliminary rulings. On the basis of such limited yet diverse material, it would be difficult, if not impossible, to draw general conclusions in any quantitative fashion.[24] However, one conclusion that could be drawn is that the number of cases seems to be increasing; roughly 80% of the cases have been decided in the 1990s or 2000s.

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[22] In order to fully understand the substantive areas, the literature on general nuclear law is an important source of information.

[23] Katja Papenkort, *Der Euratom-Vertrag im Lichte des Vertrags über eine Verfassung für Europa* (Baden-Baden: Nomos, 2008).

[24] See, however, Sebastian Wolf, 'Euratom Before the Court: A Political Theory of Legal Non-Integration' (2011) 15 *European Integration online Papers* (EIoP) http://eiop.or.at/eiop/texte/2011-010a.htm, who conducts a quantitative analysis using Euratom cases. According to Wolf, the study shows that 'spill-over' does not occur within the Euratom Treaty.

There is a lot of legislation adopted on the basis of the Euratom Treaty. This dissertation examines this legislation, and also legislation adopted on the basis of the EU Treaties. Importantly, and as already mentioned, the aim is not to examine legislation in any material sense or to provide a comprehensive account of the Euratom acquis; the aim is rather to provide an understanding of the Euratom's role in the EU structure.

Besides cases and legislation, a lot of 'background materials' are examined, in particular Commission documents. In Euratom's first 10 years of existence, the Commission adopted a report for each year with an overview of Euratom's activities: the Euratom General Reports. Following the merger of the institutions in 1967, such reports were no longer made. Subsequently, it became more difficult to study what the Euratom was actually doing, and to examine how its acquis has evolved.

Therefore, it was necessary to find a balance between describing the evolution of the acquis and describing the Euratom's current activities. That balance is a fine one, because, on the one hand, the dissertation is not about legal history, and on the other hand, it is hard, if not impossible, to examine EU law without an understanding of where it comes from, i.e., the rationale behind the provisions and the context in which it has been shaped.

To offer a more complete overview, I conducted interviews with Commission officials and officials at the Supply Agency in Luxembourg. The purpose was mainly to 'fill in the gaps', and to gain a broader understanding of how the provisions are applied.

Clarifications and Caveats

Some caveats are necessary. The dissertation's two main parts, the structural issues and the substantive issues, can be read separately, but only together do they provide a complete picture of the legal implications of the Euratom as a separate treaty. Understanding the relationship between the treaties requires an overview of the various substantial areas.

The second part, on the substantive law, is about a general mapping. The idea is not to get into the nitty-gritty of the Euratom's substantive rules, although inevitably a lot of detail will be provided, instead the dissertation will provide a broad, and, at times, detailed account of the acquis. It would be an overstatement to claim that the account is exhaustive, yet it is much more than illustrative.

The dissertation is not written from the point of view of nuclear law; this is not a 'handbook' on European nuclear law or Euratom law. Moreover, it does not try to posit the EU's nuclear energy policy in relation to its 'general' energy policy, because, again, the approach is not substantive law. Rather, as initially stated, this dissertation is about EU law and how it is constructed.

It should also be pointed out that the dissertation is not concerned with political or economic issues, but about legal ones; the future of nuclear energy from an economic perspective or political perspective is dealt with elsewhere. Its primary concern is with the relationship between treaties, and what it means that within the EU there are separate treaties and (less so) separate organisations.

The Structure of this Dissertation

As mentioned, the dissertation is divided into two main parts. Part I consists of two chapters. Chapter 1 revisits the Euratom's historical background. It explains why the Euratom came into force. It addresses the legal, political, and economic context in which it was shaped. The aim is to provide a deeper understanding of the Euratom, which helps to better examine the role of the Euratom in the EU today.

Chapter 2 concerns structural issues in the relationship between the Euratom Treaty and the EU Treaties. It seeks to conceptualise the Euratom and the EU as two legal orders. This can help us to understand how to make the choice of legal basis, and in particular, how this choice is different from the choice between different policy areas under the TFEU. The chapter also examines the question of whether 'constitutionalisation' is discernable in a Euratom context.

Part II treats substantive issues. It maps out three broad areas, which will inform us of the relationship between the EU and the Euratom: (i) nuclear industrial development; (ii) negative externalities from the civil use of nuclear energy (nuclear safety and radiation protection); and (iii) non-proliferation. These areas will be dealt with in four chapters.

Chapter 3 considers the Euratom's central objective, which is to promote the nuclear industry. What is the relevance of this objective today? The chapter makes a distinction between policy areas that could be regarded as 'dirigiste' and functions that are 'market oriented'. It shows that most areas could be regarded as 'dirigiste', but that they are only applied in a limited fashion – if they are applied at all. The chapter examines a variety of policy areas: supply, Euratom's ownership of nuclear material, investment, nuclear research, dissemination of information, and the nuclear common market. The chapter also examines whether the provisions in the TFEU on competition law and State aid apply to the nuclear sector.

Chapters 4 and 5 deal with measures that seek to control the civil use of nuclear energy. Chapter 4 explores the Euratom competence in the area of 'radiation protection', which concerns the protection of workers and the general public. The focus of this chapter is on the relationship between radiation protection and other policy areas within the competence of the EU, e.g., environmental protection, work safety, and public health. I make the claim that, in this area, the EU Treaties could just as well be used as a legal basis instead of the Euratom.

Chapter 5 discusses nuclear safety, which is the Euratom's most significant activity area today. Here I am less concerned with gaps and overlaps than I am with the Euratom's added value. The chapter examines the evolution of the nuclear safety regime. It shows that the Chernobyl accident was the 'turning point' for the Treaty; following the accident, several instruments were adopted with the Euratom Treaty as a legal basis. Other important junctures were the collapse of the Soviet Union and the Eastern enlargement. The first part focuses on competence, and the second part on substance.

Chapter 6 outlines the functional division between the Euratom and EU in the field of nuclear non-proliferation. It examines a variety of different areas: it begins with an examination of the Euratom safeguard provisions and how they relate to the IAEA safeguards system. It then explains why the EU export control system is based on the TFEU, but not on the Euratom Treaty. Thereafter, it examines the Euratom's accession to the Convention on the Physical Protection of Nuclear Material. Finally, it explores the measures adopted under the common foreign and security policy and how they relate to the Euratom measures.

The Conclusion summarises the main findings, provides some reflections on the implications of these findings, and points to areas of further research.

PART I

CHAPTER 1: A BRIEF HISTORY

The history of the EEC has been told many times. The early years of the ECSC have also received some attention in the literature.[1] The origins of the Euratom are perhaps less well known. This chapter briefly explores the Euratom's origins and its evolution during its founding period. Why did it come into being? In what political and economic context was it shaped? What expectations did the founding Member States have of the new organisation? The chapter also explores what could be described as the Euratom's 'formative years'. Why did Euratom lose its momentum as the main instrument in the European integration process? Why was the EEC regarded as such a success, while the Euratom was regarded as a failure? Why has Euratom survived?

These issues are of relevance because they give us a wider understanding of the Euratom in the EU today. By exploring the origins of the Euratom, some answers might be found to the question of why no major substantial revision has been achieved, despite the fact that so many of its provisions have never been applied. This chapter merely addresses the most significant staging posts, in order to set the scene for the subsequent chapters. Thus, while this chapter provides a general account of the Euratom's history, other chapters of this dissertation explain more specific aspects thereof, which are of importance for the understanding of the particular field.

1.1 The Birth of Euratom

In the post-war period, it was recognised early on that international cooperation would be a necessity for making scientific advances, for economic prosperity,

[1] See e.g., Ernst B. Haas, *The Uniting of Europe: Political, Social, and Economic Forces, 1950–1957* (London: Stevens & Sons, 1958). For a concise account of the development of European integration, see Michael Dougan, 'The Development of European Integration and EU Constitutional Reform', in Dennis Patterson and Anna Södersten (eds.), *EU Law and International Law* (Wiley-Blackwell, in preparation).

and to foster peace. The nuclear industry was, however, still in its infancy. In 1946, a UN Atomic Energy Commission was convened. In 1953, the US President Eisenhower delivered his famous 'Atoms for Peace' speech to the UN General Assembly.[2] The United States, which had the most developed nuclear energy programme at that time, was leading the efforts to create an international framework. Following the speech, the United States started to liberalise its nuclear legislation and to conclude international agreements. Two international scientific conferences on the Peaceful Uses of Atomic Energy, held in Geneva in 1955 and 1958, were also of importance. They underlined that nuclear energy would soon be economically competitive. In 1957, the International Atomic Energy Agency (IAEA) was established.

There was an enormous demand for energy in post-war Europe. This demand, coupled with the need to integrate Europe after the war, explains why in 1951 the governments of Germany, Belgium, France, Italy, Luxembourg, and the Netherlands established the European Coal and Steel Community.[3] A few years later, the six Member States took a further step towards integration with the creation of a European Defence Community.[4] The project was shelved after the French assembly rejected it, and that failure led to a temporary halt in the European integration process. However, integration would soon regain its momentum.

In 1953, the OEEC (now OECD) published a memorandum on Europe's energy future,[5] which stressed that the rising energy costs could have an adverse effect on economic development. This finding was supported by other studies. It became increasingly clear that indigenous energy production (coal in particular) could not meet the rising demand. In 1955, Louis Armand (later Euratom's first

[2] Speech by Dwight D. Eisenhower, President of the United States of America, to the 470th Plenary Meeting of the United Nations General Assembly, 8 December, 1953, available at the IAEA's website: http://www.iaea.org/About/atomsforpeace_speech.html.
[3] Treaty establishing the European Coal and Steel Community (ECSC Treaty), Paris, 18 April 1951, entered into force on 24 July 1952, 261 UNTS 141, No 3729.
[4] On the EDC, see, for example, Edward Furdson, *The European Defence Community: A History* (MacMillan: London, 1979); Clarence C. Walton, 'Background for the European Defense Community' (1953) 68 *Political Science Quarterly* 42–69; and Kevin Ruane, 'The Rise and Fall of the European Defense Community: Anglo-American Relations and the Crisis of European Defense, 1950–55' (2002) 107 *The American historical review* 514–15.
[5] The OEEC was established in 1948 to manage the economic aid provided under the Marshall Plan.

president),[6] prepared a report for the OEEC, which not only underlined the energy need, but also the enormous potential of nuclear energy. He pointed out that nuclear energy required international cooperation to a much higher degree than any other energy form, especially with regard to information exchange and the joint financing of nuclear power plants.

In 1955, the Benelux countries issued a Joint Memorandum on the initiative of Paul H Spaak, Belgium's Minister for Foreign affairs. They proposed widening the competences of the ECSC; harmonisation of social issues; the establishment of a general common market; and cooperation in transport and energy, in particular nuclear energy.[7] At the Messina Conference the same year, the six ECSC Member States adopted a resolution based on this memorandum, stressing that '[t]he development of atomic energy for peaceful purposes will very soon open up the prospect of a new industrial revolution beyond comparison with that of the last hundred years'. The Messina Resolution recommended the study of 'the creation of a joint organization to which will be assigned the responsibility and the means to secure the peaceful development of Atomic Energy while taking into consideration the special commitments of certain governments with third parties'.[8]

An intergovernmental committee was subsequently set up and tasked with examining the possibilities for the 'revival of Europe' and applying the Messina Resolution. It submitted a detailed report, commonly known as the Spaak Report, on the establishment of a European Atomic Energy Community.[9] The Ministers of the six countries decided that the Spaak Report would be the basis for drafting a Treaty on the Common Market and on the Euratom. At the Intergovernmental Conference in July 1956, two expert working groups were formed, one for the Euratom and one for the general Common Market. Their tasks were to prepare drafts for the new treaties.

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[6] See Louis Armand, 'Some Aspects of the European Energy Problem: Suggestions for Collective Action', Report prepared for the OEEC, June 1955.
[7] Memorandum from the Benelux countries to the six Member States of the ECSC, 18 May 1955.
[8] Resolution adopted by the Foreign Ministers of the ECSC Member States, Messina, 1 to 3 June 1955.
[9] Rapport de la commission de l'énergie nucléaire, Bruxelles, 5 novembre 1955.

The Spaak Report was largely based on a French proposal,[10] which included a common supply agency that would have common ownership of all fissionable materials in the Member States; the construction of a reprocessing plant for the European nuclear industry; the coordination and financing of national and community research; the exchange of patents; and the creation of a nuclear common market. Some of the French ideas were met with reluctance, in particular the proposal for a joint European enrichment plant and a supply agency. These ideas were part of the French strategy to break the American monopoly of enriched uranium.[11] The supply agency would buy French natural uranium, which would be processed in a joint European enrichment plant. There would be no need to buy American enriched uranium.[12] But the West German industrialists feared that French uranium prices would be too high and that they would be better off by concluding bilateral agreements with the United States.[13] Eventually, the French idea of a European enrichment plant was shelved. And the West German government declared itself willing to support the Euratom project, despite the industrialists' strong resistance.[14] But it was suggested early on that it was a mistake not to take these objections into account.[15]

Another important issue was whether to include a prohibition on the development of nuclear weapons. France strongly opposed this proposal.[16] There were also concerns that a prohibition could threaten the endeavour to

[10] See Christian Deubner, 'The Expansion of West German Capital and the Founding of Euratom' (1979) 33 *International Organization* 203–28 at 215; and Memorandum Note de la délégation française, Bruxelles, le 18 juillet 1955.
[11] Natural uranium consists of two isotopes, U-235 and U-238. Only the U-235 isotope is fissionable. Natural uranium contains 0.7% of the U-235 isotope (and 99.3% of the U-238 isotope), but this concentration is not sufficient for using it as a fuel in the most common types of reactors (light-water reactors). The concentration of U-235 has to increase. This is done through a process of isotope separation: Natural uranium is 'enriched' until the concentration of U-235 reaches 3–5 %. This is called low-enriched uranium or 'reactor grade' uranium. Some reactors require an even higher concentration of U-235. To produce nuclear weapons, the concentration has to be around 90 %. This is called 'highly enriched uranium' or 'weapons grade uranium'.
[12] Deubner, 'The Expansion of West German Capital and the Founding of Euratom', 216.
[13] Jonathan E. Helmreich, 'The United States and the Formation of EURATOM' (1991) 15 *Diplomatic History* 387–410 at 394.
[14] Deubner, 'The Expansion of West German Capital and the Founding of Euratom', 207. Deubner explains that there was no common position for West German industrialists and no overall national capitalist interests expressed by government foreign policy in the nuclear sector. Deubner, at 224.
[15] Allan Nanes, 'The Evolution of Euratom' (1957/58) 13(1) *International Journal* 12–20 at 17.
[16] Helmreich, 'The United States and the Formation of EURATOM', 400–1.

form a bloc independent from the United States and the Soviet Union.[17] A prohibition was never introduced in the Treaty.

The discussions also revolved around which form of cooperation would be the most suitable for nuclear energy. One faction wanted a conventional, intergovernmental European cooperation. The OEEC was suggested as a suitable framework. Another faction wanted a supranational organisation, intended to lead to integration among its Member States. This was finally chosen as the most suitable institutional solution.

The Action Committee for a United States of Europe,[18] formed by Jean Monnet, recommended that the six foreign ministers appoint 'Three Wise Men' to present a report on Europe's energy needs and review the possibilities to draw up a programme for nuclear power.[19] The report, 'A Target for Euratom', published in May 1957,[20] warned that economic growth was in danger; Europe was too dependent on uncertain imports of coal and oil, especially from the volatile Middle East. The advent of nuclear power was a solution to this problem. The establishment of the Euratom would offer the means to achieve their envisaged target: 'the construction of 15 million kW of nuclear plant by the end of 1967'. In drawing up the report they consulted closely with the United States, which supported the plan. It was a timely report, published just months after the Suez Crisis, which had underlined the importance of a secure energy supply.

In 1957, the Member States subsequently signed the two Rome Treaties. In 1958, the Euratom Treaty and the EEC Treaty came into force after all six Member

[17] Nanes, 'The Evolution of Euratom', 18.
[18] The Action Committee for the United States of Europe emphasised the importance of nuclear energy. They favoured a supranational Euratom. See Résolution du Comité d'action pour les États-Unis d'Europe exposant les motifs de la déclaration commune du 18 janvier 1956.
[19] The 'Three Wise Men' were: Franz Etzel (Vice-President of the High Authority of the ECSC) from Germany, Francesco Giordani from Italy, and Louis Armand from France.
[20] Louis Armand; Franz Etzel; and Francesco Giordani, 'A Target for Euratom', Report submitted at the request of the governments of Belgium, France, German Federal Republic, Italy, Luxembourg and the Netherlands, 4 May 1957, available at: http://www.ena.lu/report_wise_men_euratom_1957-2-1281 [hereinafter referred to as 'The Three Wise Men Report']. The three men were instructed to study 'the amount of atomic energy which can be produced in the near future in the six countries, and the means to be employed for this purpose'.

States had ratified them.[21]

1.2 Explaining the Creation of Euratom

As outlined, in the 1950s nuclear energy was seen as a very promising source of energy. The original Member States believed that the development of nuclear energy would pave the way for economic prosperity in Europe, and even open up a new industrial revolution.[22] The development of new technologies was seen as the only solution for a situation with scarce supply that threatened to become an obstacle to economic growth.[23] But the cost of conducting research and constructing reactors was too high for individual Member States to bear separately. It was realised that the cost had to be shared and the duplication of efforts avoided.[24] The Member States also believed that the Euratom was necessary for the general common market to succeed; a successful Common Market would lead to an expansion of production.[25]

While the economic rationale behind the creation of the Euratom seems to have been fundamental, the *political* rationale was also of major importance. Europe was short of domestic energy supplies, which made it dependent on foreign sources.[26] The availability of imported energy was uncertain, and this not only threatened Europe's economic growth, but also its political security. As Jean Monnet remarked, the political situation following the Suez Crisis in 1956 'made all of Europe more power conscious and more receptive to the joint development of atomic energy'.[27] Further, technology was equated with power,[28] and Euratom

[21] Treaty establishing the European Economic Community (EEC Treaty), Rome, 25 March 1957, in force 1 January 1958, 294 UNTS 3, No 4300; and Treaty establishing the European Atomic Energy Community (Euratom Treaty), Rome, 25 March 1957, in force 1 January 1958, 294 UNTS 259, No 4301.
[22] See Resolution adopted by the Foreign Ministers of the ECSC Member States, Messina, 1 to 3 June 1955.
[23] The Three Wise Men Report, 2.
[24] Nanes, 'The Evolution of Euratom', 13; Helmreich, 'The United States and the Formation of EURATOM', 393.
[25] Reuben Efron and Allan Nanes, 'The Common Market and Euratom Treaties: Supranationality and the Integration of Europe' (1957) 6 *International & Comparative Law Quarterly* 670–84 at 670.
[26] The Three Wise Men Report, 14.
[27] See Helmreich, 'The United States and the Formation of EURATOM', 404.
[28] Nanes, 'The Evolution of Euratom', 20.

would make Europe into a third power that would be economically and militarily independent of the United States.[29]

The aim of European integration was central in the creation of both Communities.[30] But it was the Euratom – and not the EEC – that was seen as the main instrument for integration.[31] The nuclear field was considered as being a particularly promising area because (as it was then believed) the vested interests were few. The EEC project was more uncertain.[32] France did not want the Common Market, but had proposed a sectoral cooperation on nuclear development.[33] As Deubner explains[34]:

> The negotiations on Euratom were important in two ways: first, they provided an apparently realistic short-to-medium-range objective for European integration when prospects for a general common market seemed dim; second, they kept the French in the integration talks and thereby facilitated eventual agreement by the French to a common market.

Thus, the Euratom 'was neither an irrelevant peripheral affair in the shadow of the Common Market negotiations nor was it merely a vehicle for the realisation of the EEC'[35]: The Euratom was a necessary instrument to avoid losing momentum in the integration process.

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[29] Jaroslav G., Polach, *EURATOM: Its Background, Issues and Economic Implications* (New York: Dobbs Ferry, 1964), p. 61.

[30] Moravcsik argues that the aim of integration can be explained by geo-political considerations, technocratic or ideological motives for institution building, and commercial interest. Andrew Moravcsik, *The Choice for Europe: Social Purpose and State Power from Messina to Maastricht* (Ithaca, N.Y.: Cornell University Press, 1998), p. 87.

[31] This was the view of Jean Monnet. See Moravcsik, *The Choice for Europe*, pp. 91, 145; Helmreich, 'The United States and the Formation of EURATOM', 393 (further explaining that this was also the view of Dulles, the US Secretary of State, at 400); and Lawrence Scheinman, 'Euratom: Nuclear Integration in Europe' (1967) 36(563) *International Conciliation* 8. Further, Deubner argues: 'Euratom was just not a lever for the Common Market. Until the end of 1956, Euratom remained the most realistic, central integration project of the West German Government'. Deubner, 'The Expansion of West German Capital and the Founding of Euratom', 225.

[32] Deubner, 'The Expansion of West German Capital and the Founding of Euratom', 207.

[33] Ibid.

[34] Ibid, 206.

[35] Ibid, 206. Deubner also suggests that it was the failure of the Suez Canal intervention and France's deteriorated international position that was decisive for the acceptance of the package deal with a Common Market alongside the Euratom project. Ibid., 207.

The United States, which dominated the nuclear field in the beginning of the 1950s, played an important role in the creation of Euratom.[36] The United States not only had the most advanced technology, but it was also controlling the world supply of uranium together with the United Kingdom.[37] In 1944, the United States had entered an agreement with Belgium, which gave it access to uranium in the Belgium Congo, the major supplier of ores at that time. In exchange, Belgium received information on nuclear energy technology, as well as enriched uranium for nuclear reactors. For France, it was crucial that the privileges under the bilateral agreement between the United States and Belgium could be transferred to the Euratom framework.[38] France wanted access to the United States' technological information and nuclear materials.

In the 1950s, France was the only Member State that had started to apply nuclear power on an industrial scale.[39] The other Member States were engaged in reactor development projects, but nuclear power was still at an experimental stage. The United States supported the Euratom project,[40] and declared itself willing to 'arrange for the integrated group to assume the rights and obligations of the Government of Belgium under this Agreement'.[41] The uranium would be available to the Euratom Member States and they would also get access to technological information from the United States.[42] Shortly after the Euratom Treaty had come into force, the Euratom concluded an agreement with the United States giving American firms access to the Euratom market and to the Euratom's technological information.

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[36] For a description of the role of the United States in the creation of the Euratom, see Helmreich, 'The United States and the Formation of EURATOM', 387–410.
[37] The United States had very strict legislation in the nuclear field (the US Atomic Energy Act of 1946). There were e.g., limitations on exchange of technical information on nuclear energy between the United States and other countries. The legislation was eased by the US–Euratom cooperation act of 1958. Deubner, 'The Expansion of West German Capital and the Founding of Euratom', 208.
[38] Belgium then, in turn, objected that France was more interested in Belgium uranium than in European integration. Helmreich, 'The United States and the Formation of EURATOM', 392.
[39] Three Wise Men Report, 7.
[40] Helmreich, 'The United States and the Formation of EURATOM', 387–410. The Three Wise Men Report also emphasised the important role of the United States in the formation of Euratom (at 7).
[41] Helmreich, 'The United States and the Formation of EURATOM', 403.
[42] Ibid.

It should finally be pointed out that the United States' support also had some cold war considerations.[43] The Euratom would help to resist the Soviet Union's expansionist ambitions by providing technological and economic competition. The support was also a way to advance the image of the United States as primarily interested in developing nuclear energy for peaceful purposes. Moreover, it would strengthen the ties between the United States and Europe and it would reduce Europe's dependence on oil from the Middle East. Last, but not least, it was seen as a way to deal with West Germany and to further European integration after the failure to set up the EDC.[44]

When examining the history of Euratom, it becomes clear that both political and economic factors contributed to its formation. One of the central factors was the expressed need to integrate Europe. In the 1950s, the Euratom was seen as the main instrument for the integration process. However, even a few years after it had come into force, it became clear that the expectations for the Treaty had been set too high.

1.3 International Organisations in the Nuclear Field

Two organisations were established in the same year as the Euratom: the International Atomic Energy Agency (IAEA) and the Nuclear Energy Agency (NEA, previously ENEA). Their objectives and methods overlapped.[45] The NEA was established under the OEEC (now, OECD). Its original aim and tasks were similar to those of the Euratom: it was dedicated to the promotion of the nuclear industry. Among its tasks, the NEA coordinates nuclear research and training.[46]

The IAEA, which has 162 members,[47] is the most important international organisation for cooperation in the nuclear field. Although it is an independent organisation, it has a close relationship with the UN, which is regulated by a

[43] Allan S. Nanes and Reuben Efron, 'The European Community and the United States: Evolving Relations' (1960) 22 *The Review of Politics* 182.
[44] Helmreich, 'The United States and the Formation of EURATOM', 387, 409.
[45] Michel Gaudet, *EURATOM* (London: Pergamon Press, 1959), pp. 174–75.
[46] The NEA aims at fostering the development of the production and uses of nuclear energy for peaceful purposes, including: (a) the promotion of joint undertakings; (b) coordination of nuclear research and training; (c) elaboration of uniform nuclear legislation on health and safety, liability and insurance, and (d) studies of national nuclear programmes and the assessment of the role of nuclear energy in meeting Europe's future power requirements. See the Statute of the OECD Nuclear Energy Agency, as amended on 13 July 1995.
[47] See the IAEA's website: http://www.iaea.org/About/Policy/MemberStates/.

special agreement.[48] The IAEA also has a strong association with the Euratom. In 1976, a cooperation agreement was concluded between the IAEA and the Euratom.[49] According to this agreement, '[t]he Contracting Parties shall consult each other regularly on matters of mutual interest with a view to harmonizing their efforts, as far as possible, having due regard to their respective characters and objectives'. The agreement also allows the Euratom to participate in the IAEA's annual sessions, but it has no right to vote.[50] In 2007, the IAEA and the Euratom reaffirmed their cooperation in a Joint Statement, in which the organisations emphasised 'their mutual determination to significantly reinforce the quality and intensity of their cooperation.'[51]

Gaudet clarifies how the Euratom was different from the IAEA and the NEA[52]:

> [T]o achieve their purpose in the field of nuclear energy, the member states have accepted heavier burdens and more strictly defined restrictions in Euratom than in any of the other organizations […] Opportunities open to Euratom are greater because the member states have agreed to establish a closer union among themselves. The member states have not been content with the institution of an international organization to animate and control activities; they have not been content with an organization empowered to make proposals and to interpose itself between states who still reserve for themselves a sovereign right as regards a final decision. The member states of Euratom bind themselves by rules and put themselves in the hands of joint institutions in order to reach their objectives. The very broadness and urgency of the task before them has made them decide to pool their efforts, and they have agreed to provide the unity of decision which is a fundamental condition to such a pooling. Thus they have applied to a civilian international effort a classic principle of military alliances, that of a unified command.

1.4 The Stillborn Community?

Not long after the entry into force of the Euratom Treaty, the original enthusiasm seemed to have disappeared.[53] It became increasingly clear that the Euratom was a failure. Many of the Treaty provisions came to have little or no practical

[48] International Atomic Energy Agency, The Texts of the Agency's Agreements with the United Nations, 30 October 1959, INFCIRC/11.
[49] Cooperation Agreement between the European Atomic Energy Community and the International Atomic Energy Agency, OJ 1975 No. L329, 23 December 1975, p. 28.
[50] The Euratom does not have a right to vote.
[51] 'Reinforcing Cooperation on Nuclear Energy for Peace and Development', A Joint Statement of the International Atomic Energy Agency and the European Commission, 7 May 2008.
[52] Gaudet, EURATOM, pp. 174–75.
[53] Christopher Layton, *European Advanced Technology: A Programme for Integration* (London: Allen and Unwin, 1969), p. 107.

relevance, including what in the negotiations had been considered the most central ones. This was especially true for some of the more 'supranational' provisions (for example, as shall be explained, the provisions on the Supply Agency), which never came to function in the way they were intended. Some commentators argue that, in practice, the Euratom seemed to work more as an intergovernmental organisation than a supranational organisation; it was 'supplemental rather than exclusive'.[54] There is a disparity between what was originally intended and what was actually achieved.

How can this 'failure' be explained? Why did the EEC succeed but not the Euratom? Some commentators explain that the Euratom came only to play a minimal role as an instrument for European integration.[55] Why did the EEC contribute to the integration process, but the Euratom only marginally in this respect? There is a vast literature on what factors lead to political and economic integration, but less is written on when it does *not* work. Scheinman argues that a multitude of factors explain why the Euratom experience differed from the EEC. One factor was the absence of bargaining possibilities. The scope of different activities in the EEC facilitated bargaining; policy decisions were often developed in package deals covering more than one sector. This was not possible under the Euratom framework.[56] The merger of the institutions in 1967 did not seem to have opened up for intra-Treaty bargaining.

But perhaps the most obvious explanation is that the economic realities had changed.[57] Due to new discoveries of coal reserves, there was now a coal surplus in Western Europe.[58] Further, the oil price had fallen due to the stabilised situation in the Middle East. As the price for conventional energy went down, nuclear power became less attractive. Furthermore, the overall energy demand was not as high as expected; 'Europe's energy problem' as outlined in 'A Target

[54] Scheinman, 'Euratom: Nuclear Integration in Europe', 11. Scheinman argues: '[T]he level of achievement and the extent of common action might have been attained in other less demanding organizational contexts' (at 55).
[55] Deubner, 'The Expansion of West German Capital and the Founding of Euratom' 223; Polach, *EURATOM: Its Background, Issues and Economic Implications*, p. 128.
[56] Scheinman, 'Euratom: Nuclear Integration in Europe', 56–7.
[57] Scheinman writes 'no sooner had the Euratom Treaty come into effect, than the energy situation began to change'. Ibid., 27.
[58] Alwyn V. Freeman, 'The Development of International Co-operation in the Peaceful Use of Atomic Energy' (1960) 54*The American Journal of International Law* 383–92 at 385.

for Euratom', had clearly been overestimated. Scheinman argues that 'one of the principal ingredients that had nourished the relatively easy ratification of the Treaty had been withdrawn at alarming speed'.[59]

However, if Euratom's failure could be explained only in terms of changes in demand and supply, the development of nuclear energy would have lost its momentum also on a national level. But this was never the case; the Member States continued to develop their national nuclear industries. The explanation lies somewhere else. Scheinman argues that the failure can rather be explained by 'nuclear nationalism',[60] which was particularly evident in the field of research; all the Member States viewed the Euratom as a competitor for nuclear scientists, technicians, and money. As Scheinman explains, when the Euratom was about to assume its responsibilities in 1960, the national interests were already 'firmly entrenched'.[61] The initial assumption that there were few vested interests in the nuclear field was clearly wrong. As one commentator had already argued at the end of the 1950s: 'there may yet be regrets for the ease with which Euratom was ratified'.[62]

France, which was the Community's most important nuclear power,[63] had been Euratom's most enthusiastic supporter during the negotiations. But France had quickly become hostile to the project. Charles de Gaulle, who had come into power, was a strong opponent. The overriding goal for France had been European nuclear independence, but the price of a supranational system had become too high. France decided it would only participate in the Euratom's research activities on a very limited basis[64], and it prioritised its own national nuclear programme. France was also hostile to other activity areas. There was a

[59] Scheinman, 'Euratom: Nuclear Integration in Europe', 27. Scheinman also writes that 'if the energy situation had remained critical during the first several years of Euratom's existence, the member states would have been forced to increase the scope of activity of the central institutions and perhaps also to have narrowed the disparities gap, thus facilitating the task of central coordination' (at 64).
[60] Ibid., 35–51.
[61] Ibid., 36.
[62] Nanes, 'The Evolution of Euratom', 16.
[63] France invested considerably more in nuclear development than the other Member States: Its nuclear budget was two-thirds of the total national nuclear investments in the Community and its nuclear facilities, and the number of scientists and technicians, exceeded the total of the national nuclear capacities. Scheinman, 'Euratom: Nuclear Integration in Europe', 31.
[64] France limited the number of nuclear scientists available to the Euratom, and it also refused to transform its nuclear facility at Grenoble into a site for the JRC. Ibid., 37.

general mistrust of activities that would set up limits to national sovereignty. Scheinman explains that France came to undermine Euratom by 'preventing [it] from serving its constituents effectively and in negating the scope and authority'.[65]

And France was not the only problem. There were disparities between the Member States with regard to owner structures. This made cooperation difficult. In France, the nuclear industry was state-owned. In West Germany, private actors dominated the industry. The German industrialists were very suspicious of Euratom's supranational industrial *dirigisme*.[66] Further, the Member States had divergent interests and priorities that made cooperation difficult. The Netherlands and Belgium had limited capabilities to develop their own national nuclear programmes. They were the most enthusiastic of the original Six as they had much to gain from Euratom membership.[67] Italy also had much to gain, but its goals were short term; Italy was mainly interested in securing cheap energy for its growing industry. By contrast, West Germany had long-term goals: it emphasised activity areas such as basic research, health protection and radioactive waste disposal. These disparities made it difficult to agree on a common agenda. All Member States saw the Euratom as a competitor. There was a rivalry between national programmes and the Euratom research programme; and in the Euratom's first decade it went through a serious crisis, which almost led to a complete meltdown.

1.4.1 The Euratom Crisis

At the same time as the EEC went through the 'Empty Chair Crisis',[68] which was linked to agricultural policy,[69] the Euratom had its own crisis linked to nuclear

[65] Ibid., 35. As shall be explained in Chapter 6 on 'Non-Proliferation', the Euratom Treaty provides that the Commission shall send out inspectors to the Member States to check that fissile materials are not diverted to military purposes. France refused access to Euratom inspectors to the French plutonium facilities at Marcoule, arguing that this was a military installation, and therefore exempted from the Euratom safeguards provisions. On this episode, see Darryl A. Howlett, *EURATOM and Nuclear Safeguards* (Basingstoke: Macmillan and Centre for International Policy Studies, University of Southampton, 1990), pp. 107–9; and Scheinman, 'Euratom: Nuclear Integration in Europe', 37.

[66] Deubner, 'The Expansion of West German Capital and the Founding of Euratom'.

[67] Scheinman, 'Euratom: Nuclear Integration in Europe', 32.

[68] For an analysis of 'the empty chair crisis', see, for example, Jean-Marie Palayret, Helen S. Wallace, and Pascaline Winand (eds.), *Visions, Votes, and Vetoes: the Empty Chair Crisis and the Luxembourg Compromise Forty Years On* (Brussels: Peter Lang, 2006). See also the important

research. Just like the Empty Chair Crisis, the Euratom Crisis was partly caused by the advancement of political forces that wished to take a step back from European supranationalism. But the Euratom Crisis also had specific roots, and specific solutions. The crisis was grounded in deep political divisions over security of supply, dependency on foreign technology, and the balance of power between the Member States. The core of the problem was the priorities set in the Euratom's research programmes and the Member States' different views on what Euratom research should look like. We should add that the crisis was limited to the Euratom; there was no crisis in other international organisations that dealt with nuclear research. In fact, nuclear cooperation in Europe blossomed outside the Euratom.[70]

The crisis started as a dispute over the choice of reactor technology, which the literature would refer to as the 'reactor war'. At the end of the 1950s, there were three main types of power reactors for commercial use: the gas/graphite reactors, the pressurised water reactors, and the boiling-water reactors. The first type (the gas/graphite reactor) used natural uranium as fuel, and the other two used enriched uranium. While natural uranium was relatively cheap and easily obtainable, enriched uranium was more expensive, and had to be imported; the Member States had no domestic source of enriched uranium. France used the first type (the natural uranium gas/graphite reactors) and wanted the Euratom to draw on this (French) technology instead on relying on foreign (American) technology. France argued that the Member States could secure its energy supply by using natural uranium gas/graphite reactors, as there would then be no need to import fuel. But some Member States were concerned about the French dominance in the nuclear technology field, and preferred to use American technology to close the gap between them and France.[71]

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works of Andrew Moravcsik, who argues that de Gaulle's primary motivation for launching the Empty Chair Crisis was economic, not geopolitical or ideological, e.g., 'De Gaulle and European Integration: Historical Revision and Social Science Theory', Center for European Studies Working Paper Series Program for the Study of Germany and Europe Working Paper Series 8, 5 May 1998.

[69] On the dispute on the agricultural financing regulation, see Kenneth W. Dam, 'The European Common Market in Agriculture' (1967) 67 *Columbia Law Review* 251–6 at 250.

[70] Droutman, 'Nuclear Integration', p. 181.

[71] Henry R. Nau, *National Politics and International Technology: Nuclear Reactor Development in Western Europe* (Baltimore: Johns Hopkins University Press, 1974), p. 108.

The Euratom Commission's first President, Louis Armand, was of the view that external technology would give the Euratom a flying start.[72] As mentioned, in 1958, the Euratom entered a nuclear research and cooperation agreement with the United States.[73] The agreement provided for a joint five-year research programme (which fell outside the Euratom's initial research programme) as well as a large-scale programme for the construction of American patent reactors. Eight enriched uranium reactors were to be supplied by American manufacturers, and were to be built by 1965. Under this agreement, the United States not only guaranteed the enriched uranium supply, but it also provided a loan to the Euratom to facilitate the financing of the reactors. To encourage participation in that reactor programme, the Euratom Commission recommended financial grants to participating projects. In exchange, the technical knowledge would belong to the Community.

As there were no funds available in the Euratom budget for such financial grants, the Euratom Commission's second President, Etienne Hirsch (also French), proposed a transfer from unused funds of Euratom's own research programme. France opposed this and criticised the Commission for trying to subsidise foreign (American) technology. France also argued that the use of enriched uranium reactors would make Europe dependent on the United States for its nuclear fuel supply. In the view of France, the transfer amounted to a change in the research programme, which required unanimous approval in the Council (Article 7 Euratom). But the Commission presented the transfer as a budgetary question, which only required qualified majority. France was overruled in the Euratom Council.[74]

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[72] Ibid., p. 106.

[73] Agreement for cooperation between the Government of the United States of America and the European Atomic Energy Community (Euratom) concerning peaceful uses of atomic energy (Unofficial translation), OJ 1959 No. 17, 19 March 1959, p. 312.

[74] The Euratom Council Decision was taken in 1961. France was unwilling to participate with its own reactor in the programme. The reason, some commentators suggest, was that the Programme required full technical disclosure, and this would have revealed the connection between the economics of gas/graphite reactors and the production of plutonium required for France's military nuclear programme. See Scheinman, 'Euratom: Nuclear Integration in Europe' 41–2; and Lawrence Julian Droutman, *Nuclear Integration: The Failure of Euratom* (Ann Arbor: UMI, 1982), pp. 89–93.

As a response to this episode, France refused to re-nominate Hirsch as the new President of the Euratom Commission. France appointed instead the Gaullist Pierre Chatenet and under his leadership, as Scheinman puts it, the Euratom 'evolved into a sterile body'.[75] France also made it clear that it would only approve the Euratom's new multiannual research programme under one condition: future budgetary transfers to the joint reactor programme would be considered as a change of the research programme, which, consequently, would require unanimous approval in the Council. This was the end of the joint financing of American projects.

The crisis also manifested itself in a difficulty to agree on the content of Euratom's multiannual research programmes.[76] The second research programme (adopted for the years 1963–67)[77] had to be revised due to increased costs,[78] but only a very modest increase in the budget could be achieved. Guzzetti explains that this 'made it plain that any "community spirit" had vanished from EURATOM'.[79] In 1967, the Council discussions on adopting a third multiannual research programme failed.[80] A new multiannual programme

[75] For Scheinman, the weak leadership was yet another factor that contributed to Euratom's crisis. He describes Chatenet as 'skeptical of the organization and its capacities', and that the Commission had 'contributed to the disintegration of the Community'. In the view of Scheinman, the Euratom was for many years 'a Community without a Commission'. He explains that '[o]ne of the essential factors in the successful if stormy development of the EEC is the quality and dynamism of its Commission'. Scheinman, 'Euratom: Nuclear Integration in Europe', 51–3.
[76] The first multiannual research programme was launched in 1959. Its details were provided for directly in the Treaty ('provisions relating to the initial period'). The successive programmes were adopted in accordance with the procedure in Article 7 Euratom.
[77] In focus was the so-called ORGEL programme. The aim was to develop a so-called heavy water moderated, organic liquid-cooled reactor, which was seen as promising for the second-generation nuclear power reactors. It was expected that such reactors would be installed in the Community from the 1970s onwards. The research programme also focused on the high temperature gas-cooled reactor, which was a type of reactor used in France and the UK. The Euratom also participated in the Dragon project, which was led by the OECD. It aimed at developing a pressurized helium-cooled reactor. The Euratom covered the Member States' costs for participating in this project. The Euratom also sent its own engineers.
[78] The revision of the second multiannual research programme was made in 1964. The content of the second programme was not very different from the first research programme, but the budget was almost double.
[79] Luca Guzzetti, A Brief History of European Union Research Policy (Luxembourg: OOPEC, 1995), p. 29.
[80] Guzzetti explains: 'it was decided not to set up a third multi-annual Research Programme, but to extend the previous one until 1968, while waiting for a decision over the role which nuclear research would play in the wider context of scientific and technological research'. Ibid., p. 29. This decision should be seen in light of the fact that the institutions had been merged in 1967. In 1969, the Commission submitted to the Council a document entitled 'the Euratom's Future Activities', which discussed the content of a Third Euratom Research Programme. 'Euratom's

was not adopted until 1973. For many years, Euratom research was operating *ad hoc*; the Council could only adopt interim programmes on an annual basis.

The institutions openly acknowledged the Euratom crisis. In 1968, the Commission published a White Paper on 'Resolving the Euratom crisis',[81] in which it claimed that most of the money went to national programmes that were not coordinated at European level. The Commission explained that the dispersion of research in the Community had 'prevented the effective establishment of a nuclear common market'.[82]

From 1969 onwards, the Euratom started to set up 'supplementary programmes', which the Member States could participate in *à la carte*, i.e., they could choose which programmes they would participate in.[83] The use of supplementary programmes has been described as 'diluting' the supranational aspects of the Euratom.[84] Yet, they have become a central feature of EU's general research and were institutionalised under the EEC Treaty by the Single European Act. In 1973, a new multiannual Euratom research programme was finally adopted. It was decided that Euratom's research on industrial nuclear activities would be abandoned.[85] Guzzetti writes: 'The nuclear industry of the 1970s would move

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Future Activities', COM (1969) 350 final, 30 April 1969, Bulletin of the European Communities, Supplement No. 6 – 1969.

[81] 'Pour sortir Euratom de la crise: Un livre blanc de la Commission européenne', in Communauté européenne, Novembre 1968, No 124, pp. 1, translated by the CVCE.

[82] The Commission noted: 'The Community's efforts to coordinate national programmes have yielded positive results in sectors of fundamental research such as thermonuclear fusion and biology, but have been disappointing in sectors with more immediate industrial applications. The dispersion of research and development programmes in the Community has prevented the effective establishment of a nuclear common market. As a result, the common research potential is underused, resources are wasted, and the industrial and commercial return on financial investments is very low.' Ibid.

[83] One example was the operation of the high-flux reactor at Petten, a project in which only the Netherlands and Germany became involved. See Guzzetti, A Brief History of European Union Research Policy, p. 29.

[84] Droutman, 'Nuclear Integration', p. 195.

[85] One area that seemed to be immune from disagreements was nuclear fusion. The Council had approved a new five-year programme for nuclear fusion in 1971. The relative absence of disagreements can be explained by the fact that there were no direct industrial interests. Guzzetti explains: 'Thermonuclear fusion was to become the only area where national and community efforts harmoniously went together and where a common strategy and leadership for the European Commission in global negotiations turned out to be feasible […] It helped that industrial interests were far in the future'. See Guzzetti, A Brief History of European Union Research Policy, pp. 12–5.

forward on a national basis, or through agreements between Member States, entirely outside the scope of EURATOM'.[86]

It should also be mentioned that the Empty Chair Crisis of 1965, the six-month French boycott of European institutions, also affected the Euratom: France did not attend meetings in any of the three Community Councils. However, as Droutman points out, the boycott might in fact have had a *positive* effect on the Euratom; the crisis temporarily halted the bitter discussions on the Euratom research programmes during this period.[87] But while the Empty Chair Crisis was solved with the Luxembourg Compromise,[88] the Euratom Crisis continued well into the 1970s.

1.5 Conclusions

The purpose of this brief overview was to set the stage for the following chapters. As explained, the Euratom Treaty was adopted to create economic prosperity and to ensure Europe was not dependent on foreign energy sources. Some commentators also believed that the Euratom would be an important instrument for integration. When the economic and political realities changed, the Euratom's very rationale disappeared. It is in this context that we must situate the Euratom today. We will now move forward and start examining the formal relationship between the Euratom and the EU.

[86] Ibid., p. 30.
[87] Ibid., p. 164.
[88] The Luxembourg Compromise granted the Member States a veto over legislation that would threaten a 'vital interest'. On the Luxembourg Compromise, see, e.g., John Lambert, 'The Constitutional Crisis 1965–66' (1966) 5 *Journal of Common Market Studies* 140–228; and N. Piers Ludlow, *The European Community in the Crises of the 1960s: De Gaulle Challenges the Community* (London: Routledge, 2006).

CHAPTER 2: THE STRUCTURAL RELATIONSHIP

This chapter considers structural issues. In the early days of European integration, the European Communities were merely one of many legal venues. Only in more recent times has the EU become the 'main' one. Today, the European countries may have different reasons (political, legal, etc.) for choosing one venue over another.[1] But the choice between the Euratom and EU is different. This choice is also different from a choice between different policy areas under the TFEU. This chapter demonstrates that these distinctions are not always easy to articulate. Consequently, as explained in the Introduction to the dissertation, there are uncertainties about how to deal with overlaps and gaps between the Treaties, particularly about how to make the choice of legal basis and how to deal with overlaps of detailed rules in primary law.

The chapter seeks to clarify these distinctions by conceptualising the Euratom and EU as legal regimes. Do Euratom and the EU form one single 'legal regime' or are they better conceptualised as forming two separate legal regimes? If they are separate legal regimes, the Treaties might be best understood as 'autonomous' in relation to each other. It is assumed that the existence of separate legal regimes produces certain consequences. This would suggest that we cannot apply the EU Treaties in the alternative where only the EU Treaties, but not the Euratom Treaty, contain rules in a specific area that appears to come within the scope of Euratom. Another consequence is that legislation with a joint legal basis would be *ultra vires*.

It should be made clear from the outset that the Lisbon Treaty did not solve any of these issues. As this chapter explains, instead of the three pillars with the EU

[1] Bruno de Witte and Anne Thies, 'Why choose Europe? The place of the European Union in the architecture of international legal cooperation', in Bart Von Vooren, Steven Blockmans, and Jan Wouters (eds.), *The EU's role in Global Governance: the Legal Dimension* (Oxford: Oxford University Press, 2013), pp. 23–38. As this chapter makes clear, the relationship between the Euratom and EU is clearly closer than just a 'European Legal Space'. On this concept, see Christopher Harding, 'The Identity of European Law: Mapping Out the European Legal Space' (2000) 6 *European Law Journal* 128–47.

as the overarching framework, the EC was absorbed into the EU, the ECSC became defunct and the Euratom was in an anomalous position; post-Lisbon, it is unclear whether the Euratom forms part of the EU. And, if the Euratom cannot be said to form a part of the EU, then it is not clear what their relationship is.

The legal regime issue is also of importance for the very nature of Euratom power and for what kind of entity it is. Let me explain. It is frequently argued that the EU has evolved into an *entity sui generis* and that the EU Treaties are now regarded as 'constitutional law'. Has the Euratom also followed a constitutional path? To what extent can it be said that the Member States have agreed that the evolution of the Euratom's 'constitutional twin' [the EEC Treaty] will also be applicable to the Euratom Treaty? Can we apply constitutional principles developed in the context of the EU also to the Euratom? These questions on the constitutionalisation of Euratom are closely connected to the questions about the choice of legal basis. If we cannot say that the Euratom Treaty is a 'constitutional order', we might have two separate legal regimes. This seems, for example, to exclude the possibility to apply a joint legal basis. Consider, for example, a legal instrument adopted on the basis of both the Euratom and the EU. It cannot have both a direct effect and not have a direct effect.

There are several steps we need to take when addressing these complex and intertwined questions. We shall first examine the relationship between the Euratom and EU through theoretical lenses. The Euratom-EU relationship will be conceptualised in terms of 'legal regimes' (or 'legal orders').[2] We want to understand what it means that Euratom is a separate treaty. We then consider the architectural structure and formal links, connecting the Euratom Treaty and the EU Treaties. What are the links that support the claim that the Euratom and EU belong to the same legal regime? How have these links evolved? The chapter then considers the different 'ethos' of the treaties, and then deals with the 'constitutionalisation' of Euratom. The final section discusses the 'shall not

[2] As noted in the Introduction to the dissertation, I use the terms 'legal regime' and 'legal order' interchangeably; here, they mean the same.

derogate' clause, which regulates the relationship between the Euratom Treaty and the EU Treaties.

2.1 The Euratom as a Legal Regime

A legal regime can be very loosely defined as a set of rules that are addressing the same subject matter; for example, we sometimes refer to the existence of a 'legal regime' when referring to a set of international rules, such as the international legal regime of 'environmental law'. The legal regime of 'nuclear law' is another example.[3] We think of them as 'legal regimes' not only because the rules address the same subject matter, but also because they have distinct rationales and objectives, and they use specific legal concepts.[4] And we think of them as 'legal regimes' despite the fact that the rules may have been established by different international organisations and despite the fact that the participating member states in those international organisations may vary.

We may also refer to 'legal regimes' in a national context. Particular branches, or areas of law, for example, 'criminal law' and 'environmental law', may occasionally be characterised as forming *separate* legal regimes. Yet, these policy areas could also be conceptualised as belonging to *the same* legal regime. The reason is the following: In a national context, they are ultimately governed by the same overarching legal principles or rules, and, obviously, by the same constitution. In a Hartian or Kelsenian understanding of a legal order, they can be said to belong to the same legal regime because they share the same 'Grundnorm' or 'Rule of Recognition'. We shall explore this in more depth.

Kelsen describes a legal order as a 'system of norms'. The norms are ordered hierarchically,[5] and each norm is validated by a preceding norm ('Stufenbau'), until the ultimate source of authorisation, the 'Grundnorm', is reached.[6] Norms that belong to the same legal order derive their authority from this basic norm, and this explains why a coercive order is objectively valid. The basic norm also

[3] See e.g., Fabrizio Nocera, *The Legal Regime of Nuclear Energy: A Comprehensive Guide to International and European Union law* (Antwerp: Intersentia, 2005).
[4] Sometimes, similar legal terms are used, but they express different concepts in different legal regimes. For example, the principle of proportionality may have distinct meanings under criminal law and environmental law.
[5] Hans Kelsen, *General Theory of Law and State*, trans. Anders Wedberg (New York: Russell and Russell, 1961), p. 110.
[6] Hans Kelsen, *Pure Theory of Law* (New Jersey: The Lawbook Exchange, 2009), p. 195.

constitutes the unity in a multitude of legal norms in that it represents the reason for validity of all norms that belong to an order. The question of whether two norms belong to the same legal order may be answered in the affirmative if it can be shown that their validity can be traced back to the same basic norm, as links in a chain of authority.[7] A legal order is therefore delineated by its basic norm. According to Kelsen, the basic norm is to be found in the very first 'historical constitution'.

The Kelsenian definition of a legal order is widely accepted in the continental legal tradition,[8] but a few words should also be said about the work of H.L.A Hart, one of the most influential legal theorists in the Anglo-American tradition.[9] Hart rejects Kelsen's transcendentalist notion of a basic norm, and argues instead that the validity in a legal system is a social rule: the authority of law results from social practice or custom. The core of Hart's theory of law as social rules is his notion of the 'Rule of Recognition', which provides unity, and provides the validity framework of a legal system. Norms are identified as legal rules through validation by higher-level norms, but the rule of recognition cannot be validated; it is ultimate. It is a social rule because it achieves its status as a legal rule by officials, accepting it as obligatory.[10] In short, the Rule of Recognition is itself neither valid nor invalid. However, it provides the validity conditions for the norms of the system (for Hart, these are Primary and Secondary rules).

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[7] Kelsen distinguishes between two different types of legal orders or norm systems: A static system of norms and a dynamic system of norms. See Kelsen, General Theory of Law and State.
[8] For a critique of Kelsen's understanding of a legal order, see Leslie Green, 'Legal Positivism', The Stanford Encyclopaedia of Philosophy (Fall 2009 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/fall2009/entries/legal-positivism/>. As Leslie Green explains: 'One cannot say both that the basic norm is the norm presupposing which validates all inferior norms and also that an inferior norm is part of the legal system only if it is connected by a chain of validity to the basic norm. We need a way into the circle'. Another criticism that Green puts forward is that it seems to provide incorrect boundaries between legal systems. Green's example is the Canadian Constitution of 1982, which was created by an Act of the UK Parliament. By application of the Kelsenian doctrine, Canadian law and English law would be based on the same Grundnorm, but, clearly, English law is not binding in Canada, and further, if the Act of the UK parliament were repealed, this would have no legal effects for the Canadian constitution.
[9] H.L.A. Hart, *The Concept of Law* (London: Oxford University Press, 1961).
[10] For a legal system to exist, it also has to be efficacious: ordinary citizens do not need to accept its obligatory character, but they generally have to obey the rules that the Rule of Recognition validates. A legal system is in the Hartian view 'a union of primary and secondary rules'. Primary rules are rules of conduct, and secondary rules are rules of change, rules of adjudication, and the rule of recognition. See Hart, The Concept of Law.

There are some fundamental differences between Kelsen's Grundnorm and Hart's Rule of Recognition. One of the more important of these is that the Grundnorm is transcendental[11] while the Rule of Recognition is a social fact. Despite these metaphysical differences, what is most important for our purposes is that the Grundnorm and the Rule of Recognition both serve to establish boundaries between legal systems. We shall now try to apply these theoretical understandings to the Euratom.

2.1.1 Identifying the Grundnorm

Can the Euratom be conceptualised as a separate legal regime? If applying the Kelsenian understanding, we first have to define the 'basic norm'. According to Kelsen, the Grundnorm is found in the first 'historic constitution'. Does this mean that we can find the Grundnorm somewhere in the founding treaties? Is it, for example, enshrined in the process of adopting the treaties, that is, in Article 48 TEU on treaty revision? If Article 48 TEU would somehow embody the Grundnorm, the EU and Euratom would thus form one single legal order. Since Maastricht, the EU and Euratom are sharing the same provision for treaty revision. But, identifying Article 48 TEU as the Grundnorm would be problematic for the following reason: pre-Lisbon, the EU and EC also shared the same provision for treaty revision. They would then also have formed one single legal regime. But in the *Kadi* case, the Court held that a single legal order did not exist. It was rather a matter of a 'coexistence of the Union and the Community as *integrated but separate legal orders*'.[12] Of course, the Court does not explain in *Kadi* what it actually means by a 'legal order'. But it seems that we have to continue our search for the Grundnorm.

Perhaps the Grundnorm is then instead found in the Member States' constitutions? Article 48 TEU states that the Member States must ratify treaty amendments before they can enter into force and that this shall be done in accordance with the Member States' respective constitutional requirements. This does not seem to capture the Grundnorm either. As Kelsen explained, the

[11] On Kantian transcendentalism, see Gerhard Luf, 'On the Transcendental Import of Kelsen's Basic Norm', in Stanley L. Paulson and Bonnie Litschewski (eds.) *Normativity and Norms: Critical Perspectives on Kelsenian Themes* (Oxford: Clarendon, 1999), pp. 221–34.
[12] Joined Cases C-402/05 P and C-415/05 P, *Kadi and Al Barakaat International Foundation* v. *Council* [2008] ECR I-6351, para 202. Emphasis added.

problem of identifying the Grundnorm in international law depends on the perspective one takes as a point of departure. From an international law perspective, the Grundnorm is attributed to international law, and from a national perspective, it is found in national constitutions. This difficulty in identifying the Grundnorm is not specific to the EU; we face the same problem in relation to all international organisations.

There are some obvious difficulties in identifying the 'basic norm'. If we assume that it would be possible to identify it, the next question would be: is there a shared legal basis for the EU and Euratom, i.e., do they share the same Grundnorm? If so, what type of relationship is this?

2.1.2 Hierarchy

According to Kelsen, legal orders sharing the same basic norm can be ordered hierarchically (according to Kelsen's definition, they also then belong to the same legal system). Hierarchy can also be established in 'less well-defined' legal regimes. One example is Article 103 of the UN Charter (and the notion of *jus cogens*), which means that it is hierarchically superior to all other norms in the 'international system'. It could also be a matter of two sub-orders of equal value, coordinated by an overarching superior order. One example is two regional state systems in a Federal Order.

Is the Euratom-EU relationship best described as one single legal order, or are there two legal regimes that are hierarchically ordered? If a common source of validity cannot be found, we could be left with two separate legal orders with two distinct basic norms. If it were a hierarchical relationship, then Euratom would find its validity in the EU Treaties (it seems that we can at least assume that the Euratom is not at the apex of the hierarchy). But even if it could be established that they form one single legal regime or separate legal regimes, it is stated nowhere that one treaty is hierarchically superior to the other.

Could it instead be a matter of sub-orders of equal value, coordinated by an overarching superior order? Prior to the Lisbon Treaty, the EU Treaty included a formulation that the EU is 'founded' on the three Communities (Article 1(3) EU). This was seen as the foundation for the 'pillar structure', which, in this context,

could be seen as such an overarching superior order. We shall discuss this formulation and the pillar structure in further detail below. Here, it will suffice to say that the removal of this formulation and the pillar structure by the Lisbon Treaty revision suggests that an overarching legal order does not exist.

2.1.3 Legal Orders with Competing Ultimate Points of Reference

What if there is no shared Grundnorm? If two legal orders do not share the same basic norm, it is less obvious how to address conflicts. There might be some 'legal points of contact',[13] i.e., structural links that could provide solutions to conflict. Yet, between some systems, such legal bridges are weak, or non-existing. In the absence of a common source of validity, how are such conflicts to be resolved?

It is frequently argued that the evolving trend of globalisation has transformed the Kelsenian theoretical construction into a somewhat inadequate analytic tool. The Westphalian notion of the nation state no longer reflects reality as nation states have lost their sovereignty to international and regional organisations, private entities, and a range of other different legal orders.[14] As the number of distinct legal orders is increasing, it is argued that the risk of collisions between such legal orders is also increasing. This phenomenon, insofar as it refers to international law, is characterised in the literature as the 'fragmentation of international law'.[15] In recent years, this phenomenon has engendered intense academic debate over how to best characterise the relationship between legal orders and how conflicts between legal orders can and should be resolved. The main division is between 'constitutionalism' and 'pluralism'. Could these debates add something to our discussion on the conceptualisation of the Euratom and EU as legal regimes?

Constitutionalism is traditionally understood as a conception belonging to the national sphere, but there is now a burgeoning literature that attempts to

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[13] Werner Schroeder, 'European Union and European Communities', *Jean Monnet Working Paper* 9/03, Max Planck Institute for Comparative Public Law and International Law Heidelberg, 24–27 February 2003.
[14] For an early discussion on this theme, see Susan Strange, *The Retreat of the State: The Diffusion of Power in the World Economy* (Cambridge: Cambridge University Press, 1996).
[15] Martti Koskenniemi and Päivi Leino, 'Fragmentation of International Law? Postmodern Anxieties' (2002) 15 *Leiden Journal of International Law* 553–579.

translate it to an international setting.[16] This debate is to be understood in the light of the increasing importance of international law, and the notion that public power has moved beyond the nation state. At the European level, constitutionalism has been described as 'the gradual submission of politics to a process of law'.[17] As Eric Stein pointed out in his seminal article, 'Lawyers, Judges, and the Making of a Transnational Constitution', this process started already in the 1960s when the ECJ developed concepts of primacy and direct effect in *Costa Enel* and *Van Gend en Loos*.[18] The EU's constitutional evolution took a further step in *Les Verts* when the Court famously stated that the EC was a community 'based on the rule of law', and that neither its Member States nor its institutions could avoid a review of their measures on the basis of the EC treaty, 'the basic constitutional charter'.[19] The Constitutionalist approach put the emphasis on hierarchy. This suggests that legal orders share the same basic norm: they all have the same 'ultimate source of authorisation'. But as the link between state consent and international law is slackening, this basic norm seems difficult to identify.

But most scholars do not see a complete transfer of the traditional concept of constitutionalism to the international realm as likely or desirable.[20] Some commentators see pluralism as a more viable alternative. Unlike the constitutionalist approach, the pluralist vision does not provide an overarching legal framework solving collisions between legal orders. When collisions between different legal orders occur, they will be solved ad hoc, and by political processes rather than by legal manoeuvres. The pluralist perspective describes the world as 'heterarchic'. Scholars defending this perspective see diversity between legal orders as a value. As Schiff Berman puts it, normative conflict among multiple, overlapping legal systems is unavoidable and sometimes even

[16] Neil Walker, 'Constitutionalism', in Roland Axtmann (ed.), *Understanding Democratic Politics: An Introduction* (London: SAGE, 2003), pp. 12–21 at 16.
[17] Nico Krisch, *Beyond Constitutionalism: The Pluralist Structure of Postnational Law* (Oxford: Oxford University Press, 2010), p. 30.
[18] Eric Stein, 'Lawyers, Judges, and the Making of a Transnational Constitution' (1981) 75 *American Journal of International Law* 1–27.
[19] Case 294/83, *Parti écologiste "Les Verts"* v. *European Parliament* [1986] ECR 1339, para. 23.
[20] Some commentators advocate the idea of a global government. They argue that there is already a global constitution in place: the UN Charter. See e.g., Bardo Fassbender, *The United Nations Charter as the Constitution of the International Community* (Leiden: Martinus Nijhoff Publishers, 2009).

desirable.[21] Neil MacCormick, one of the most influential advocates of legal pluralism, regarded EU law and national law as systemic units, which are fundamentally and irreconcilably opposed because they are without a common ultimate point of reference. National law has national constitutions as the ultimate point of reference; and, from a EU law point of view, the Treaties are regarded as superior.[22]

What theoretical understanding would best fit the Euratom-EU relationship? It is plain that constitutionalism does not offer much to our enquiry. How about pluralism? As explained, pluralism emphasises the absence of a final authority deciding the resolution of conflicts. It casts conflict between legal orders as competing claims to authority. This does not quite seem to capture the relationship between the Euratom and EU. Even if there were distinct basic norms (and thus separate legal orders), conflicts do not appear to be irresolvable. Why is it so?

2.1.4 The Significance of a Shared Institutional Framework

When it comes to the relationship between the EU and the Member States, there are different institutions, e.g., the Court of Justice and national courts, each

[21] See Paul Schiff Berman, 'Global Legal Pluralism' (2007) *Southern California Review* 80, *Princeton Law and Public Affairs Accepted Paper Series* Paper No. 08-001 Spring Semester, 1155; and Berman, *Global Legal Pluralism: A Jurisprudence of Law beyond Borders* (Cambridge: Cambridge University Press, 2012).

[22] Neil MacCormick, 'Risking Constitutional Collisions in Europe' (1998) 18 *Oxford Journal of Legal Studies* 517, 528–532. This kind of pluralism has been referred to as 'radical' or 'hard'. Softer versions of pluralism have been developed, which emphasise pluralism of institutions and suggest elements intended to create harmony between legal orders. A few words should also be said about 'constitutional pluralism', which seeks to combine elements from both the constitutionalist understanding and the pluralistic vision. Under this umbrella term, we find Maduro's ideas on 'contrapunctual law', where actors in different systems should recognise the competing claims of one another and agree on meta-methodological principles that secure values in the absence of a common ultimate authoritative source of validity. See Miguel Maduro, 'Contrapunctual Law: Europe's Constitutional Pluralism in Action', in Neil Walker (ed.) *Sovereignty in Transition* (Oxford: Hart, 2003), pp. 501–38. See also Kumm's 'cosmopolitan constitutionalism'. He argues that overarching norms, such as subsidiarity, democracy and due process could, in principle, provide solutions to conflicts. Matthias Kumm, 'The Cosmopolitan Turn in Constitutionalism: On the Relationship between Constitutionalism in and beyond the State', in Jeffrey L. Dunoff and Joel P. Trachtman (eds.) *Ruling the World: International Law, Global Governance, Constitutionalism* (New York: Cambridge University Press, 2009), pp. 258–325.

making claims of authority and autonomy.[23] As Tuori explains, legal actors in these legal orders 'are bound to adopt the perspective of the legal order under which the institution they serve has been established and its powers defined'.[24] This explains the position of the CJEU in *Van Gend en Loos*,[25] and similarly, the position by the German Bundesverfassungsgericht in the *Solange* cases.[26] The same is true for the relationship between the EU and international law (e.g., *Kadi*).[27]

The Euratom-EU relationship is of a different kind. There are no rival 'actors' claiming supremacy. This is because these legal orders (if they can be conceptualised as such) share the same institutional structure. Hartley explains this relationship with the analogy of two commercial companies with the same shareholders and the same board of directors.[28] So, in the Euratom-EU relationship, there is simply no tension between different courts making the ultimate claim for authority; it is not a question of legal orders with different ultimate points of authority (cf. national law v. EU law). This view is consistent with Raz's theory on legal systems. According to Raz,[29] the existence of 'rival supremacy claims signal the presence of various legal systems'.[30] The absence of

[23] Note that the national courts can also be regarded as EU courts in the preliminary reference procedure in Article 267 TFEU. This view is supported by the Court in Opinion 1/09, *Creation of a unified patent litigation system* [2011] ECR I-1137.
[24] Kaarlo Tuori, 'Transnational Law: On Legal Hybrids and Legal Perspectivism', in Miguel Maduro, Kaarlo Tuori, Suvi Sankari (eds.), *Transnational Law: Rethinking European Law and Legal Thinking* (Cambridge: Cambridge University Press, 2014), pp. 11–57.
[25] Case 26/62, *NV Algemene Transport- en Expeditie Onderneming van Gend & Loos* v. *Netherlands Inland Revenue Administration* [1963] ECR 1.
[26] Solange I, BVerfGE, 2 CMLR 540; and Solange II, BVerfGE, 3 CMLR 225. See, notably, Julie Dickson, 'How Many Legal Systems?: Some Puzzles Regarding the Identity Conditions of, and Relations Between, Legal Systems in the European Union' (2008) 2 *Problema: Annuario de Filosophia y Teoria del Derecho* 9–50, discussing various ways of understanding the character of and relations between legal systems in the EU.
[27] Joined Cases C-402/05 P and C-415/05 P, *Yassin Abdullah Kadi and Al Barakaat International Foundation* v. *Council and Commission* [2008] ECR I-6351.
[28] Trevor C. Hartley, *The Foundations of European Community Law: An Introduction to the Constitutional and Administrative Law of the European Community* (Oxford: Oxford University Press, 2007), p. 9 (see also the more recent editions where, however, this quote is not found. Trevor C. Hartley, *The Foundations of European Union Law* (Oxford: Oxford University Press 2014).
[29] Joseph Raz, *The Authority of Law* (Oxford: Oxford University Press, 2009), 116–20. See also more generally, Raz, *The Concept of a Legal System: An Introduction to the Theory of Legal System* (Oxford: Clarendon Press; New York: Oxford University Press, 1980).
[30] See Keith Culver and Michael Giudice, 'Not a System but an Order: An Inter-Institutional View of European Union Law', in Julie Dickson and Pavlos Eleftheriadis, *Philosophical Foundations of*

such rival supremacy claims could mean that what we have is one single legal order. The shared institutional framework seems to be decisive.

But recall that pre-Lisbon, the EC and the EU also shared institutions. What significance did the shared institutional framework have here? In *Kadi*, the ECJ's rejection of the CFI's position that the former Article 308 EC could be extended to EU objectives,[31] suggests that the 'single institutional framework' did not have any bearing on the idea of that the EU and the EC formed one single legal order. As pointed out, the Court held that the EC and EU were 'integrated but separate legal orders'.[32] But what exactly made them into *separate* legal orders? As noted, the Court never clearly explains this.

The EC-EU was not a matter of two legal orders with rival supremacy claims. So, if they really were 'separate legal orders', they must have been conceptually different from legal orders discussed so far. Indeed, Marmor argues that the claim of supremacy is not a necessary feature of a legal order.[33] But what made the EC and EU separate? One explanation is that the pre-Lisbon EU itself was a weak legal entity. As will be explained in more detail in the next section, some viewed it merely as a 'nominal framework'.[34] Perhaps more importantly, the EC-EU relationship was characterised by a tension between the supranational (EC) and intergovernmental (EU, CFSP). The EC and EU were separate legal orders because they were different in nature. But does it follow that the Euratom and EU should be regarded as the *same* legal order because they are of the *same nature* – both supranational (as well as sharing the institutional structure)? The Euratom Treaty and the EEC Treaty were adopted at the same time and had many similar features. This parallelism might at least explain why these legal

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European Union Law (Oxford: Oxford University Press, 2012), 54–76. Culver and Giudice seek to apply Raz's theory to the relationship between the EU and the Member States.

[31] See further, Marise Cremona, 'EC Competence, "Smart Sanctions" and the Kadi Case' (2009) 28 *Yearbook of European Law* 559–92.

[32] Joined Cases C-402/05 P and C-415/05 P [2008] ECR I-6351, para 202.

[33] See Andrei Marmor, *Positive Law and Objective Values* (Oxford: Clarendon Press; New York: Oxford University Press, 2001), 39–42. Marmor points to the counter-example of medieval legal systems, which had no such claims to supremacy: 'positive law was seen as an exception to customs, traditions, religion, and in general, social practices long in force. Thus the law, as a relatively exceptional normative source, could only intervene within the narrow space left open by these other normative sources' (p. 41).

[34] See further the section below.

regimes (again, if characterised as such) were very closely linked, if not completely integrated.

2.2 The Architectural Structure and Links

There have always been links between the three Communities; the ECSC Treaty came into force in 1952, and the two Rome Treaties – the EEC Treaty and the Euratom Treaty – in 1958. In their first decade, the three Communities shared the same single Assembly (European Parliament) and the same single European Court of Justice. The other institutions were separate and acted independently (the ECSC even had a separate seat in Luxembourg, while the other two Communities had their seats in Brussels). At least initially, the three Communities were regarded as separate legal orders.[35]

In the early 1960s, proposals under the *Fouchet* plan were put forward to unify the three Communities under a single legal framework.[36] These proposals were never adopted. In 1967, the 'Merger Treaty' merged the Community institutions. But the three Communities continued to exist separately. And while the question of whether the three Communities formed a single legal order received some attention,[37] it was, as de Witte puts it, 'not a major source of concern in terms of institutional performance or democratic legitimacy'.[38] The existence of three separate Communities was thus seen as a small problem, if a problem at all.

It took the Court until the 1980s to articulate a need for cohesion and coherence between the three Communities. The Court addressed the issue in Case C-

[35] See e.g., European Economic Community Commission, First General Report on the Activities of the Community (January 1958 to September 1958), 28–29. The Commission pointed out that the Assembly stated in its Resolution of 27 June 1958 that 'the three Communities stem from one political idea and concept, and form three separate elements in a single entity'. The Commission disputed this and held that because of the 'shall not derogate' clause (see the final section of this chapter), 'the three Communities therefore remain legally separate entities'. See also Hugo J. Hahn, 'Euratom: The Conception of an International Personality' (1958) 71 *Harvard Law Review* 1001–1056 at 1043.

[36] Ulrich Everling, 'From European Communities to European Union', in Armin von Bogdandy, Petros C. Mavroidis and Yves Meny (eds.), *European Integration and International Co-ordination*: *Studies in Transnational Economic Law in Honour of Claus-Dieter Ehlermann* (Hague: Kluwer Law International, 2002), pp. 139–57.

[37] Albert Bleckmann, 'Die Einheit der Europäischen Gemeinschaftsrechtsordnung, Einheit oder Mehrheit der Europäischen Gemeinschaften' (1978) 13 *Europarecht* 95–104.

[38] Bruno de Witte, 'The Question of the Treaty Architecture: 1957–2007', in Andrea Ott and Ellen Vos (eds.), *Fifty Years of European Integration – Foundations and Perspectives* (The Hague: T.M.C. Asser Press, 2009), pp. 9–20, at 10.

221/88, *ECSC* v. *Faillite Acciaierie*,[39] which concerned the Court's jurisdiction to give preliminary rulings under the ECSC Treaty. Such jurisdiction to interpret the Treaties had been given to the Court in the EEC Treaty and the Euratom Treaty,[40] but there was no such explicit provision in the ECSC Treaty. The Court emphasised that with respect to the ECSC Treaty, the requirement of ensuring uniformity in the application of Community law is 'equally cogent and equally obvious', and that 'it would be contrary to the objectives and the coherence of the Treaties' if the Court would not have the power to ensure a uniform interpretation when it comes to the ECSC Treaty.[41]

Moreover, the creation and institutionalisation of the European Political Cooperation in Foreign Affairs (EPC, the forerunner to the CFSP) raised some concerns about fragmentation. This led to the advancement of proposals for merging the Communities within a single treaty text. The European Parliament's so-called *Spinelli* Draft Treaty from 1984 was the most important proposal.[42] The Spinelli Draft suggested that the Communities would be replaced with a European Union, which would include the EPC and the European Monetary System, both created outside the treaty framework. The Member States discarded this proposal.

Only a few years later, the Single European Act (SEA)[43] was adopted. It linked the three Communities, albeit without merging them. Article 1 of the SEA stated that the 'European Communities' shall be 'founded' on the three Community Treaties. It read:

> The European Communities shall be founded on the Treaties establishing the European Coal and Steel Community, the European Economic Community, the European Atomic Energy Community and on the subsequent Treaties and Acts modifying or supplementing them.

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[39] See Case C-221/88, *ECSC* v. *Faillite Acciaierie e ferriere Busseni SpA* [1990] ECR I-495, paras 10–17.
[40] Article 177 EEC and Article 150 Euratom (both are now replaced by Article 267 TFEU).
[41] The Court had already taken a hesitant step in this direction in Case 230/81, *Luxembourg* v. *European Parliament* [1983] ECR 255.
[42] See also the so-called Tindemans Report, in which the Commission proposed that the Communities would be transformed into a European Union. See Leo Tindemans, 'European Union', Report by Mr. Leo Tindemans, Prime Minister of Belgium, to the European Council, Bulletin of the European Communities, 1975, Supplement 1/76.
[43] Single European Act, OJ 1987 No. L169, 29 June 1987, p. 1.

This could be seen as a first step in creating a single entity, although one could argue that the words 'European Community' [singular] should then have been used instead of 'European Communities' [plural]. The Maastricht Treaty later amended this provision, and replaced the words 'European Communities' with the 'European Union'. As will be discussed below, the debate that followed shows that the meaning of that provision was anything but clear.

The SEA also codified the EPC in treaty text,[44] but a decisive step to integrate the EPC with the Communities was only taken by the Maastricht Treaty, which introduced what became known as the 'pillar system'. The first pillar, the so-called Community pillar, contained all three Communities. It had supranational characteristics and decisions were generally taken by the 'Community method'.[45] The second and the third pillars (the Common and Foreign Security Policy; and the Justice and Home Affairs) had intergovernmental characteristics and were instead governed by the 'international cooperation method'.[46] As de Witte points out, some commentators criticised the introduction of the three-pillar system, because, as they saw it, it represented a step backwards in the integration process, given that intergovernmental features were brought into the framework.[47] It is important to point out that even within this new framework, the three Communities continued to exist separately, with separate treaties and separate legal personalities.

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[44] See Maarten W. J. Lak 'Interaction between European Political Cooperation and the European Community (external) – Existing Rules and Challenges' (1989) 26 *Common Market Law Review*, 281–99, who points out that a common legal structure was not created at this point. The importance of the codification of the EPC can be illustrated by the fact that it was in focus for the constitutional challenge on the SEA in the Irish Supreme Court. See further, John Temple Lang, 'Irish Court Case Which Delayed the Single European Act: Crotty v. An Taoiseach and Others' (1987) 24 *Common Market Law Review* 709–18.

[45] See Renaud Dehousse, '"The Community Method": Cronicle of a Death too Early Foretold', in Renaud Dehousse and Laurie Boussaguet (eds.), *The Transformation of EU Policies – EU Governance at Work*, CONNEX Report Series, no 8 (2008), 7–31. Under the 'Community method', the Commission had an almost exclusive role to submit proposals for legal acts; the Council generally took decisions by qualified majority voting instead of unanimity; and the European Parliament had a strong role in the decision-making procedure. The ECJ had jurisdiction to interpret and review the legality of legal acts.

[46] Under the second and third pillar, the Commission did not have exclusive competence to submit proposals; the Council generally took its decisions by unanimous voting; and the European Parliament had a limited and often merely consultative role. The ECJ had a limited jurisdiction within these fields. In contrast to the first pillar, the cooperation method resembled the method of cooperation in a traditional international organisation. It was therefore described as 'intergovernmental' in character.

[47] Bruno de Witte, 'The Question of the Treaty Architecture: 1957–2007', 12–13.

But the central question in the debate that followed the Maastricht Treaty was not whether the three Communities had been merged but, rather, whether the Communities and the EU could be regarded as one single legal regime. Central in this debate was the significance of Article 1(3) EU, which stated that the EU was *founded on the European Communities*.[48] Some commentators argued that this provision implied that the EU and the Communities were to be seen as a single unity, and, even that the EU had absorbed the three Communities.[49]

Some other changes should also be noted here. The Maastricht Treaty removed from the three Community Treaties their separate provisions on treaty revision[50] and replaced them with Article 48 EU, which read: 'The government of any Member State or the Commission may submit to the Council proposals for the amendment of *the Treaties on which the Union is founded*'.[51] This provision reflected the formulation in Article 1(3) EU and it strengthened the impression that the Communities and the EU were parts of one single legal order. The Maastricht Treaty also merged the separate provisions on accession of new Member States into one single article (Article 49 EU)[52]: '[t]he conditions of admission and the adjustments to *the Treaties on which the Union is founded*, which such admission entails, shall be the subject of an agreement between the Member States and the applicant State'.[53] Also this provision reflected Article 1(3) EU. However, it has been argued that this fusion was of little political significance as 'the fact that prospective new Member States could only join all three Treaties together had already previously been part of the acquis

[48] Article 1(3) TEU stated that the '[t]he Union shall be founded on the European Communities, supplemented by the policies and forms of cooperation established by this Treaty'.
[49] See Armin von Bogdandy, 'The Legal Case for Unity: the European Union as a Single Organization with a Single Legal System' (1999) 36 *Common Market Law Review* 887–910.
[50] Article 236 EEC, Article 204 Euratom and Article 96 ECSC. The treaty revision procedures in the EEC Treaty and the Euratom Treaty were identical. The procedure contained in the ECSC Treaty was almost identical to the procedures in the two Rome Treaties.
[51] Emphasis added.
[52] States could accede by the application of Article 237 EEC, Article 205 Euratom and Article 98 ECSC. These provisions were merged into Article O EU (Maastricht Treaty).
[53] Emphasis added.

communautaire'.[54] The merger of the accession provisions was, however, clearly of *legal* significance; it tied the three Communities closely together.

In the debate on whether the Communities and the EU could be regarded as one single legal regime (it was predominantly the EC-EU relationship that was discussed), some commentators also stressed the importance of former Article 3 TEU. They emphasised that the three pillars were part of a single institutional framework, which was subject to a set of common legal principles. The Communities and the EU were seen as institutions of one single organisation, or as 'different capacities with partially specific legal instruments and procedures'. The Communities had been absorbed as independent organisations.[55] Some commentators countered this argument with the 'theory of dédoublement fonctionnel', according to which institutions could be shared between separate legal orders.[56]

But not even the fiercest defenders of the view that the EU and the EC formed a single legal regime regarded the unity as being similar to any Kelsenian understanding of a legal order. Von Bogdandy admitted that 'the Union is operating under the premise of constitutive plurality, as well as the lack of a structuring hierarchy'.[57] Other commentators criticised the unity approach. They argued that the three Communities had not been merged and that the Maastricht Treaty had not changed their legal status.[58] It was further pointed out that the idea to create one single legal regime had been explicitly rejected in the negotiations leading up to the Maastricht Treaty.[59] The EU was 'merely a nominal framework located outside the EC within which the institutions of the European

[54] See e.g., von Bogdandy, 'The Legal Case for Unity', 889, note 10. Cf. Koen Laenerts and Piet van Nuffel (Robert Bray (ed)), *Constitutional Law of the European Union* (Sweet & Maxwell, 1999), p. 274.
[55] Von Bogdandy, 'The Legal Case for Unity', 887. See also Christoph W. Herrmann, 'Much Ado About Pluto? The Unity of the European Union Legal Order Revisited' in Marise Cremona and Bruno de Witte (eds.), *EU Foreign Relations Law: Constitutional Fundamentals* (Oxford: Hart, 2008).
[56] Werner Schroeder refers to Scelle, who developed the 'theory of role splitting'. This understanding has been criticised for being too formalistic. See Schroeder, 'European Union and European Communities', 31–2.
[57] Von Bogdandy, 'The Legal Case for Unity', 890.
[58] Matthias Pechstein and Christian Koenig, *Die Europäische Union*: *Die Verträge von Maastricht und Amsterdam* (Tübingen: Mohr Siebeck, 1998), pp. 42–3.
[59] Everling, 'From European Communities to European Union', p. 150.

Community acted in conjunction with the Member States'.[60] While some pointed out that the function of the EU framework was to create coherence and consistency between the different legal systems,[61] others maintained that a fragmented picture was emerging; the EU was of 'bits and pieces'.[62]

Some commentators were of the view that the EU did not have any independent formal legal existence, and was not – at least not in any traditional sense – regarded as a subject of international law.[63] The view that the EU and the Communities did not form one single legal regime was supported by the fact that the EU did not have an explicit legal personality.[64] Yet, the absence of an explicit legal personality did not prevent the EU from acting externally; the EU even concluded agreements with third parties.[65] But the continued separate existence of the three Community legal personalities[66] was seen as evidence of the continued existence of three separate organisations.[67]

Understanding the position of the Euratom in a pre-Lisbon context is not only about the relationship between the Communities and the EU, but also about the relationship between the three Communities themselves. Over the years, the EEC had in many aspects become the dominant of the three Communities. It was in relation to the EEC that the Court developed constitutional principles, which led to an expansion of competences. Eventually, the EEC was no longer merely of an economic character, but also of a social character. In the light of this evolution, it was natural to replace the term 'European Economic Community' with 'European

[60] Bruno de Witte, 'The Question of the Treaty Architecture: 1957–2007', 14.
[61] The formulation in Article 5 TEU gave some support for this approach. It stated that the institutions should exercise their powers under the conditions and for the purposes provided for, on the one hand, the Community Treaties, and on the other hand, the EU Treaty.
[62] Deirdre Curtin, 'The Constitutional Structure of the Union: A Europe of Bits and Pieces' (1993) 30 *Common Market Law Review* 17–63.
[63] See Pechstein and Koenig, Die Europäische Union. As a result, the European Council was according to this view better characterised as a conference of governments rather than an organ of an organisation. See also Eileen Denza, *The Intergovernmental Pillars of the European Union* (Oxford: Oxford University Press, 2002); Ramses A. Wessel, 'The International Legal Status of the EU' (1997) 2 *European Foreign Affairs Review* 109–129; Ramses A. Wessel, 'Revisiting the International Legal Status of the EU' (2000) 5 *European Foreign Affairs Review* 507–37.
[64] Thomas Oppermann, *Europarecht: ein Studienbuch* (München: Beck, 1999), p. 75, note 154.
[65] Deirdre Curtin and Ige F Dekker, 'The European Union From Maastricht to Lisbon', in Paul Craig and Gráinne de Búrca (eds.), *The Evolution of EU law* (Oxford: Oxford University Press, 2011), pp. 155–85 at 167.
[66] Article 281 EC, Article 184 Euratom and Article 6 ECSC.
[67] Oppermann, *Europarecht*, p. 75, note 154.

Community'.[68] This change of name certainly also contributed to the notion that the three Communities had somehow been merged.

At the same time, owing to subsequent institutional practice, the view that the Communities and the EU formed one single legal regime became increasingly accepted. Curtin and Dekker came to take a position somewhere in between those who defended the 'unity thesis' and those who stressed the separateness of the Communities and the EU. They described the EU as a 'layered organisation' with the Communities operating as autonomous sub-organisations.[69] The stance of the ECJ was also somewhere in between the two 'extreme' positions. As mentioned, the Court pointed out in *Kadi* that the EU and the EC were to be seen as two 'integrated but separate legal orders'.[70] Indeed, they were undeniably integrated, and perhaps most important was the fact that they had common provisions on treaty revision and accession. However, separateness could be equally stressed. Cremona argues that there were two separate treaties that could stand alone, i.e., if one of them were repealed, the other one could continue.[71]

2.2.1 The Removal of the Pillar Structure

Let us now focus on how the Lisbon Treaty transformed the architectural structure of the European Union by removing the pillar system. The European Community was replaced and succeeded by the Union.[72] As a consequence, 'EC law' turned into 'EU law' and all policy areas were integrated into one European Union.[73] The Court of Justice of the European Communities (ECJ) changed its name to the Court of Justice of the European Union (CJEU). The European Union

[68] The European Economic Community changed its name to the European Community with Article G.A.1 in the Maastricht Treaty: 'The term "European Economic Community" shall be replaced by the term "European Community"'.
[69] Deirdre Curtin and Ige F. Dekker, 'A "Layered" International Organization', in Paul Craig and Gráinne de Búrca (eds.), *The Evolution of EU law* (Oxford: Oxford University Press, 1999), pp. 83–136 at 85.
[70] Joined Cases C-402/05 P and C-415/05 P, *Yassin Abdullah Kadi and Al Barakaat International Foundation* v. *Council and Commission* (2008) ECR I-6351, para 202.
[71] Marise Cremona, 'The Two (or Three) Treaty Solution: The New Treaty Structure of the EU', in Andrea Biondi, Piet Eeckhout, and Stefanie Ripley (eds.), *European Union Law After the Treaty of Lisbon* (Oxford: Oxford University Press, 2012), pp. 40–61 at 44–5.
[72] Article 1(3) TEU.
[73] But note that the CFSP is still 'subject to specific rules and procedures' (Article 24 TEU).

was vested with single legal personality. The rationale behind these revisions was to create a unitary entity as called for in the 2001 Laeken Declaration.[74] Did the Lisbon Treaty achieve this objective?

There are still two 'EU Treaties': the Treaty on European Union (TEU) and the Treaty on the Functioning of the European Union (TFEU).[75] The Euratom still exists separately; there is a separate treaty, which establishes a Community with a separate legal personality. Further, as Piris argues, the legal implications of the removal of the pillar structure should not be overestimated as the CFSP, the former second pillar, still has special characteristics[76]; it has its own rules and procedures.[77] The decisions in the European Council and the Council are still generally taken by unanimous voting, and there is a limited role played by the European Parliament. Some scholars, however, argue that the architectural revision should be taken seriously. As Dougan points out: '[t]o recognize the continued existence of such an autonomous sub-system would undermine the clear intention of the revised Treaties that the Union should constitute a unitary entity'.[78] Indeed, the Court no longer sees the CFSP and 'non-CFSP' as 'separate legal orders' (cf. Kadi). What matters is instead the procedural incompatibility.[79]

The Lisbon Treaty repealed the formulation that the EU is 'founded on the European Communities' (ex Article 1(3) EU). Two different articles have replaced it. One is found in the TEU and the other one in the TFEU. They both state that 'the Union is founded on the TEU and the TFEU' and that these two treaties are of 'the same legal value'. This means, as Dougan puts it, that the TEU

[74] Presidency Conclusions of the Laeken European Council (14 and 15 December 2001): Annex I: Laeken Declaration on the Future of the European Union, Bulletin of the European Union (2001) No 12, 19–23.
[75] There is no hierarchy between them; they have 'the same legal value' (Article 1(3) TEU and Article 1.2 TFEU).
[76] See Jean-Claude Piris, *The Lisbon Treaty: A Legal and Political Analysis* (New York: Cambridge University Press, 2010), p. 67. In Piris' view, constitutional principles developed in an EC Treaty context apply to all areas of EU activity, including the principle of primacy.
[77] Article 24 TEU.
[78] Dougan is here referring to the CFSP as a sub-system within the EU. See Michael Dougan, 'The Treaty of Lisbon 2007: Winning Minds, not Hearts' (2008) 45 *Common Market Law Review* 617–703 at 625.
[79] Case C-130/10, *European Parliament* v. *Council* EU:C:2012:472, para 46–9. See also C-658/11, *European Parliament* v. *Council* EU:C:2014:2025, Opinion of AG Bot.

and the TFEU should be read as a 'seamless ensemble of primary law for the Union'.[80] Article 1(3) TEU reads:

> The Union shall be founded on the present Treaty and on the Treaty on the Functioning of the European Union (hereinafter referred to as 'the Treaties'). Those two Treaties shall have the same legal value. The Union shall replace and succeed the European Community.[81]

The Euratom Treaty is not mentioned in any of these provisions. The EU no longer seems to be 'founded on' the Euratom and the Euratom no longer seems to be an explicit part of the architectural structure. There is no longer even a formal link from the EU Treaties to the Euratom Treaty. How did the Lisbon Treaty change the Euratom? And how did the Lisbon Treaty change the relationship between the EU and Euratom?

2.2.2 Treaty Revision and Institutional Reform

The Euratom Treaty has never been amended in substance. However, each major treaty revision has brought some changes that have, to some degree, transformed the relationship between the Euratom and EU. The first major change was brought by the 'Merger Treaty', which merged the Community institutions. The Maastricht Treaty introduced the next major change. It merged the provisions for accession and treaty revision (and these provisions stated that the EU was 'founded on the European Communities'). While the Amsterdam Treaty deleted some lapsed provisions and made some adaptions,[82] the Nice Treaty introduced no changes.

In 2001, the Laeken Declaration called for a simplification and reorganisation of the EU Treaties. No specific calls were made for a reform of the Euratom Treaty. In the subsequently formed European Convention, however, several convention

[80] Dougan, 'The Treaty of Lisbon 2007: Winning Minds, not Hearts', 624.
[81] Article 1(2) TFEU is similar and reads: 'This Treaty and the Treaty on European Union constitute the Treaties on which the Union is founded. These two Treaties, which have the same legal value, shall be referred to as "the Treaties"'.
[82] Article 8 of the Amsterdam Treaty. It replaced words such as 'after the entry into force of this Treaty' by 'after 1 January 1958' (Article 76, second Para) Article 93, 98, 104, 105, and 106 were amended in a similar manner. It also repealed the provisions on a common external tariff (Articles 94 and 95 Euratom). The reason was that, in practice, the EC provisions were applied instead. The Treaty also repealed a provision that stated that Member States must undertake to authorise payments connected with the movement of products and production factors.

members presented proposals for how to reform the Treaty.[83] One proposal was to transpose certain Euratom provisions into the Constitution's treaty text and repeal obsolete provisions.[84] Another proposal was to phase out the Euratom Treaty by 2007. Just like the EU Treaties, the Euratom Treaty is concluded for an unlimited period (Article 208 Euratom). The phasing-out option would mirror the phasing out of the ECSC Treaty in 2002, i.e., 50 years after the Member States adopted it. This option would postpone the discussion and it would enable the Convention to focus on more pressing issues. Yet another proposal was to give the Member States the possibility to withdraw from the Euratom Treaty.

According to the Praesidium, there was no basis to become involved in an operation to amend the Treaty substantially. There was also too little time for such an exercise.[85] But in the view of the Praesidium, the Treaty could not remain unchanged. It had to be adapted to the envisaged changes to the Union's institutional and financial provisions.[86] The most appropriate route was to adjust the Euratom by means of a Protocol. The Praesidium proposed the use of a general clause, which was to refer to the institutional and financial provisions in

[83] For a detailed discussion on the different proposals and the work of the Convention on Euratom, see Katja Papenkort, *Der Euratom-Vertrag im Lichte des Vertrags über eine Verfassung für Europa* (Baden-Baden: Nomos, 2008), pp. 51–71; Dörte Fouquet and Antony Froggatt, 'Options for the EURATOM Treaty in the Framework of a New European Constitution,' May 2003, available at: http://www.eu-energy.com/options-euratom.pdf; and Pamela Barnes, 'The Resurrection of the EURATOM Treaty – contributing to the legal and constitutional framework for secure, competitive and sustainable energy in Europe', in Thijs Etty and Han Somsen (eds.), *Yearbook of European Environmental Law* (Oxford: Oxford University Press, 2008).
[84] The provisions suggested to be included into the draft Constitution were the provisions on 'Health and Safety' and 'Safeguards'. The European Convention, The Secretariat, Brussels, 18 February 2003 CONV 563/03.
[85] The Praesidium argued: '[g]iven the Convention's terms of reference and its timetable, the Praesidium believes that there is no basis for the Convention to become involved in an operation to amend the Euratom Treaty substantially, nor would it be appropriate for it to do so'. 'Suggested approach for the Euratom Treaty', (CONV-621-03-03-14-EN) The European Convention – The Secretariat, Brussels, 14 March 2003.
[86] The Praesidium explained: 'The substantial amendments which the Convention envisages making to the Union's institutional and financial provisions in the context of the Constitutional Treaty mean that the corresponding provisions in the Euratom Treaty cannot remain unchanged, but should be adapted correspondingly'. The Praesidium also addressed the problem with repealing the previous Treaties (Single Act, Maastricht, Amsterdam and Nice). There were some provisions introduced by those Treaties that concerned the Euratom Treaty: Article 190 on the language regime (the Nice Treaty); Article 198(a) stipulating that the Euratom Treaty does not apply to the Faroe Islands; Article 201 concerning relations with the OECD; and Article 206 on association agreements (these amendments were made by the Maastricht Treaty). Ibid.

the Constitutional Treaty.[87] This solution would make it possible to repeal the previous Treaties. It also suggested repealing Article 184 Euratom, which establishes that the Euratom has a legal personality: 'the fact that it is still a separate Treaty would not preclude a merging of the legal personalities of the Euratom Community and of the European Union'. The Praesidium pointed out that this implied that the word 'Community' had to be replaced by the words 'European Union', and that it had to be indicated that the Union succeeds and replaces the 'Euratom Community'.[88]

The Convention finally decided that the Euratom Treaty would remain in force. It was also decided that the Euratom was to keep its separate legal personality.[89] All other options could risk slowing down the Convention's work and possibly also threaten the ratification process. And when the Lisbon Treaty was later formed, the Convention's solution for Euratom was chosen. The amendments are found in Protocol No 2, which is annexed to the Lisbon Treaty.[90] The Lisbon Treaty removed most of the institutional and financial provisions from the Euratom Treaty – provisions that were identical to the provisions in the TEU and the TFEU. The Euratom provisions were replaced by Article 106a Euratom, which enlists a number of provisions in the TEU and TFEU that shall apply to the Euratom Treaty. The idea was to streamline and to avoid duplication of provisions. No amendments were made to the substantive provisions.

It should be pointed out that the Member States were divided on how (if at all) to reform the Euratom Treaty. The preamble of the protocol amending the Treaty

[87] The proposed general clause did not specify to which provisions in the Constitutional Treaty that would apply. Instead, it listed some Euratom Treaty provisions that would prevail. The proposed clause read (Article 107 Euratom): 'Without prejudice to the specific provisions laid down in Articles 134, 135, 144, 145, 171, 172, 174 and 176, the institutional and financial provisions of the Treaty establishing a Constitution for Europe (Articles XX to ZZ) and Article 45 1 of that Treaty apply to this Treaty.' Ibid. Cf. ex Article 41 TEU.
[88] The Praesidium explained: 'Merging the legal personalities means that the agreements concluded by the Commission pursuant to Article 101 TEAEC commit the Union. If the legal personalities are not merged, these agreements would be concluded by the Euratom Community. Third States and international organisations might therefore, where appropriate, have to conclude agreements either with the European Union or with the Euratom Community, depending on the subject. This situation, while being technically possible from a legal point of view, would probably conflict with the Convention's intention to simplify'. Ibid.
[89] The amendments to the Treaty were to be found in Protocol 36 on Amending the Treaty Establishing the European Atomic Energy Community, annexed to the Treaty establishing a Constitution for Europe, OJ 2004 No. C310, 16 December 2004, p. 1.
[90] Note that this is not a Protocol annexed to the EU Treaties, but to the Lisbon Treaty.

recalls 'the necessity that the provisions of the Treaty establishing the European Atomic Energy Community should continue to have full legal effect'. However, five Member States (Germany, Ireland, Hungary, Austria and Sweden) adopted a Declaration,[91] where they noted that the 'core provisions […] have not been substantially amended since its entry into force and need to be brought up to date'. They called for a reform 'as soon as possible'. The discussions on the Euratom Treaty have been left for a later date.

We shall now examine the amendments the Lisbon Treaty brought and how they transformed the relationship between the Euratom and EU.

2.2.3 Institutional Framework after Lisbon

The only formal link between the EU and Euratom is found in Article 106a Euratom. The first paragraph refers to certain institutional and financial provisions in the EU Treaties that 'shall apply' to the Euratom Treaty. The second paragraph is a clarification that within the framework of the Euratom Treaty, the references to the 'Union', the TEU, and the TFEU in the provisions referred to in the first paragraph and those in the annexed protocols should be taken as references to the Euratom and to the Euratom Treaty. We should clarify here that this does not mean that *all* protocols attached to the EU Treaties also apply to the Euratom. There are 37 protocols annexed to the EU Treaties[92] and only six of them are also attached to the Euratom Treaty[93]: only these six protocols

[91] Declaration No. 54: 'Germany, Ireland, Hungary, Austria and Sweden note that the core provisions of the Treaty establishing the European Atomic Energy Community have not been substantially amended since its entry into force and need to be brought up to date. They therefore support the idea of a Conference of the Representatives of the Governments of the Member States, which should be convened as soon as possible'.

[92] Of the 37 protocols, 11 were added or amended by the Lisbon Treaty.

[93] The protocols form an integral part of the Euratom Treaty through Article 207 Euratom (which corresponds to Article 51 TEU). The following protocols are attached to the Euratom Treaty: Protocol (No 1) – On the role of National Parliaments in the European Union; Protocol (No 3) – On the statute of the Court of Justice of the European Union; Protocol (No 6) – On the location of the seats of the Institutions and of certain bodies, offices, agencies and departments of the European Union; Protocol (No 7) – On the privileges and Immunities of the European Union; Protocol (No 35) – On Article 40.3.3 of the Constitution of Ireland; Protocol (No 36) – On Transitional Provisions. We can also note here that the amendments of the Euratom Treaty were inserted in a protocol attached to the Lisbon Treaty.

clarify in their preambles that they are attached to the Euratom.[94] This can only mean that the remaining 31 protocols do not apply. We shall discuss some implications of this further below. The third paragraph of Article 106a includes a 'conflict clause', which shall also be discussed further below.

Let us here focus on the first paragraph.[95] Following the Lisbon amendments, the EU and Euratom are now not only sharing the same institutions, but also the same institutional provisions.[96] As a result, the Euratom Treaty could no longer stand alone. If the EU Treaties were repealed, then the Euratom would have no institutional provisions.[97] As mentioned, there is no such link in the other direction: the EU Treaties can continue without the Euratom Treaty. But the EU and Euratom's institutional frameworks are not exactly the same; there are some important differences.

We shall next discuss some rather disparate aspects of the shared institutional framework: the role of the European Parliament and democratic principles; a possible application of the system of Comitology; Euratom specific bodies; and enforcement.

2.2.3.1 The Role of the European Parliament

One of the most important institutional differences between the EU and Euratom concerns the role of the European Parliament. Just like the EU, the Euratom has

[94] In addition, the consolidated version of the Euratom Treaty annexes only these six protocols. It should of course be recalled here that the consolidated versions have no legal effect.
[95] Article 106a.1 reads: Article 7, Articles 13 to 19, Article 48(2) to (5), and Articles 49 and 50 of the Treaty on European Union, and Article 15, Articles 223 to 236, Articles 237 to 244, Article 245, Articles 246 to 270, Article 272, 273 and 274, Articles 277 to 281, Articles 285 to 304, Articles 310 to 320, Articles 322 to 325 and Articles 336, 342 and 344 of the Treaty on the Functioning of the European Union, and the Protocol on Transitional Provisions, shall apply to this Treaty.
[96] As a consequence, the EU institutions' rules of procedure are no longer adopted on a joint legal basis. These rules were pre-Lisbon based on both the EC Treaty and the Euratom Treaty (and previously also on the ECSC Treaty). See the Council's rules of procedures: Council Decision 2009/937/EU of 1 December 2009 adopting the Council's Rules of Procedure, OJ 2009 No. L325, 11 December 2009, p. 35. The previous Decision was Council Decision 2006/683/EC, Euratom of 15 September 2006 adopting the Council's Rules of Procedure, OJ 2006 No. L285, 16 October 2006, p. 47.
[97] Cremona, 'The Two (or Three) Treaty Solution, pp. 44–5.

been criticised for suffering from a 'democratic deficit'.[98] The focal point for this critique is that the Euratom Treaty excludes the European Parliament from the legislative procedure, which, at its best, has a right to be consulted. Unlike the EU Treaties, no changes have ever been made to strengthen the Parliament's role under the Euratom.[99]

The Lisbon Treaty introduced a range of measures to enhance the role of the European Parliament under the EU Treaties. This was in line with the aim to enhance the EU's democratic legitimacy. The most important change is perhaps the extension of the 'ordinary legislative procedure' to nearly all policy areas where the Parliament previously had only a consultative role. Under the ordinary legislative procedure, the Council and the European Parliament are virtually co-legislators. It applies also to the Euratom through Article 106a Euratom, which refers to both Article 289 (which provides for the ordinary legislative procedure and a special legislative procedure) and 294 TFEU (which defines the ordinary legislative procedure). This brings the Euratom and EU under the same framework of decision-making and it is also in line with the Laeken Declaration's call to simplify.

The practical implications are only minimal, however; not a single one of the Euratom's legal bases identifies the ordinary legislative procedure. Therefore, the procedure only applies where the Treaty does not explicitly state how the decision should be taken. But many of the Euratom Treaty provisions are detailed and do not give rise to legislative powers. Consequently, the question is

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[98] See, in particular, European Parliament, Directorate-General for Research, 'The European Parliament and the Euratom Treaty: Past, Present and Future', Working Paper, Energy and Research Series, 2-2002; Ilina Cenevska, 'The European Parliament and the European Atomic Energy Community: A Legitimacy Crisis?' (2010) 35(3) *European Law Review* 415–24. On the EU's democratic deficit in general, see for example, Giandomenico Majone, 'Europe's Democratic Deficit: The Question of Standards' (1998) 4 *European Law Journal* 5–28; Andrew Moravcsik, 'Reassessing Legitimacy in the European Union' (2002) 40 *Journal of Common Market Studies* 603–624; Andreas Follesdal and Simon Hix, 'Why There is a Democratic Deficit in the EU: A Response to Majone and Moravcsik' (2006) 44 *Journal of Common Market Studies* 533–562; and J.H.H. Weiler, 'Does Europe Need a Constitution? Demos, Telos and the German Maastricht Decision' (2010) 1 *European Law Journal* 219–58.

[99] Although the decision to introduce direct elections for the European Parliament obviously also concerned the Euratom as the institutions were shared, see Decision 76/787/ECSC, EEC, Euratom of the representatives of the Member States meeting in the council relating to the Act concerning the election of the representatives of the Assembly by direct universal suffrage, OJ 1976 No. L278, 8 October 1976, p. 1.

whether the Euratom gives room for the application of the ordinary legislative procedure. The reference in Article 106a Euratom could at best be said to have a symbolic function.[100]

The Lisbon Treaty also strengthened other aspects of the European Parliament. The Council now has to obtain the Parliament's consent when adopting certain international agreements.[101] The Parliament shall also be 'immediately and fully informed at all stages of the procedure' (Article 218(10) TFEU). But under the Euratom Treaty, the Parliament has no say at all when it comes to international Euratom agreements[102]and the Lisbon Treaty did not change this. The Lisbon Treaty also strengthened the Parliament's role under Article 352 TFEU. It has to give its consent to legislation adopted on the basis of this treaty provision. There was no corresponding change of Article 203 Euratom, Euratom's own 'flexibility clause'. The European Parliament shall only be consulted. In one area, however, an important change has been made: the Lisbon Treaty enhanced the European Parliament's powers under the budgetary procedure. The parliament now co-decides together with the Council on all expenditure.[103] Besides this change, the European Parliament's role has not strengthened under Euratom; it still functions like an advisory body.

2.2.3.2 Democratic Principles

The Lisbon Treaty also aimed to strengthen 'democracy' in other ways. It introduced a Title on 'Provisions on Democratic Principles' (Article 9–12 TEU). The EU Treaty now states that the Union 'shall be founded on representative democracy' (Article 10 TEU). It also emphasises the importance of participatory

[100] Cf. von Bogdandy who argues that the ordinary legislative procedure can be understood as realisations of the principle of democracy. Armin von Bogdandy, 'Founding Principles of EU Law: A Theoretical and Doctrinal Sketch' (2010) 16 *European Law Journal* 95–111, at 110. Indeed, the reference also clarifies that that the legislative procedures under the Euratom Treaty shall be termed a 'special legislative procedure'. Article 289.2 TFEU reads: 'In the specific cases provided for by the Treaties, the adoption of a regulation, directive or decision by the European Parliament with the participation of the Council, or by the latter with the participation of the European Parliament, shall constitute a special legislative procedure'.

[101] For other international agreements, the Council only has to consult the Parliament (Article 218(6) TFEU).

[102] Article 101 Euratom.

[103] See Article 314 TFEU. Article 106.a Euratom refers to this provision.

democracy[104] and deliberative democracy.[105] In addition to these provisions, with a largely symbolic function, the Lisbon Treaty also introduced a more concrete measure to enhance the democratic legitimacy: the Citizen's Initiative (Article 11.4 TEU). The aim is to involve citizens in the EU's legislative procedure.[106] These provisions do not apply to the Euratom because there is no reference in Article 106a Euratom.[107]

The Lisbon Treaty also aims to enhance democratic legitimacy by bringing the national parliaments into the EU's legislative procedure. Article 12 TEU states that '[n]ational Parliaments contribute actively to the good functioning of the Union'. It then specifies how national parliaments shall contribute in this regard: They shall, *inter alia*, contribute by '(a) being informed by the institutions of the Union and having draft legislative acts of the Union forwarded to them' … (b) 'seeing to it that the principle of subsidiarity is respected'… (d) 'taking part in the revision procedures of the Treaties'… (e) 'being notified of application for accession to the Union'; and (f) 'taking part in the inter-parliamentary cooperation between national Parliaments and with the European Parliament'. This provision on the national parliaments does not apply to the Euratom (because Article 106a Euratom does not refer to Article 12 TEU). But surprisingly, the 'Protocol on the role of national Parliaments' applies. The Protocol provides that the EU institutions shall inform the national parliaments on legislative drafts etc. There is no obvious explanation to this inconsistency. In this context, we should also point out that the principle of subsidiarity as enshrined in Article 5.3 TEU and the 'Protocol on the application of the principles

[104] Article 10.3 TEU provides: 'Every citizen shall have the right to participate in the democratic life of the Union'.
[105] Article 11.1 TEU provides: 'The institutions shall, by appropriate means, give citizens and representative associations the opportunity to make known and publicly exchange their views in all areas of Union action'.
[106] Article 11.4 TEU provides that 'Not less than one million citizens who are nationals of a significant number of Member States may take the initiative of inviting the European Commission, within the framework of its powers, to submit any appropriate proposal on matters where citizens consider that a legal act of the Union is required for the purpose of implementing the Treaties'. See also Article 24 TFEU and Regulation (EU) No 211/2011 of the European Parliament and of the Council of 16 February 2011 on the citizens' initiative OJ 2011 No. L65, 11 March 2011, p. 1.
[107] Cf. Christian Joerges who argues that the citizen's initiative can be applied to the Euratom. Christian Joerges, 'The Timeliness of Direct Democracy in the EU — The Example of Nuclear Energy in the EU and the Institutionalisation of the European Citizens' Initiative in the Lisbon Treaty' (2012) 3 *Beijing Law Review* 1–6.

of subsidiarity and proportionality' do *not* apply to Euratom. We shall discuss this further below.

As shown above, little effort has been made to make the Euratom more 'democratic', and what has actually been done seems rather incoherent. It is beyond the purpose of this dissertation to examine the rationale behind this choice (or indeed whether there is a rationale at all).

2.2.3.3 The Commission and Comitology

Does the system of Comitology apply to the Euratom? The Council started delegating implementing powers to the Commission in the 1960s in the field of common agricultural policy.[108] A number of committees were set up to supervise the Commission's implementing powers, i.e., to allow the Member States to retain some control over the delegation. The system was formalised in the 1980s and later revised to allow for the participation of the European Parliament in some of the committees.[109] The EC Treaty provisions were amended in order to formalise the Comitology system (Article 202 EC), but a corresponding amendment of the Euratom provisions was never made. The Comitology system did not apply to the Euratom. The reason could be that it was unnecessary, as no or very little power was delegated to the Commission under the Euratom Treaty.

Could the Euratom make use of the Comitology system today? It should be pointed out that the Lisbon Treaty transformed the system. Article 290 TFEU provides that the Commission may be delegated the power to adopt 'non-legislative' acts ('delegated acts') of general application 'to supplement or amend

[108] See Carl Fredrik Bergström, *Comitology: Delegation of powers in the European Union and the Committee System* (Oxford: Oxford University Press, 2005). On the reformed Comitology system, see Adrienne Héritier, Catherine Moury, Carina S. Bischoff, and Carl Fredrik Bergström, *Changing rules of Delegation: A Contest for Power in Comitology* (Oxford: Oxford University Press, 2013); and Andrea Biondi, Piet Eeckhout with Stefanie Ripley (eds.), *EU law after Lisbon* (Oxford: Oxford University Press, 2012).

[109] Council Decision 87/373/EEC of 13 July 1987 laying down the procedures for the exercise of implementing powers conferred on the Commission, OJ No. L197, 18 July 1987, p. 33. In 1999, the system opened up for the Parliament to participate in some of the committees. The system was revised in 2006 and again in 2011. See Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers, OJ 2011 No. L55, 28 February 2011, p. 13.

certain non-essential elements' (of the legislative act). Article 291 TFEU establishes a category for 'implementing acts'. Such acts shall be adopted '[w]here uniform conditions for implementing legally binding Union acts are needed', and they shall detail how the Member States shall uniformly adopt legislation. The Comitology Regulation details the rules for how the Commission shall exercise this power. This hierarchy of norms introduced by the Lisbon Treaty also applies to the Euratom Treaty. Article 106a Euratom refers to Article 290 and 291 TFEU.[110] So, it seems that Comitology can now be used for Euratom legislation. But as mentioned, there seems to be little need for Comitology as the Council does not delegate much legislative power to the Commission. In addition, the Euratom already gets technical input through its specific advisory bodies, which we shall briefly examine below.

2.2.3.4 Euratom Specific Bodies

The Euratom's most central advisory body is the 'Scientific and Technical Committee' (Article 134 Euratom), which is 'attached to the Commission' and which has 'advisory status'. Under some treaty provisions, this Committee must be consulted,[111] but the Commission may also consult it where appropriate. The Euratom Treaty also provides that this Committee shall appoint a group of persons consisting of scientific experts in the Member States ('and in particular public health experts'). This group shall give its opinion on the 'basic standards' worked out by the Commission.[112] These two bodies assist the Commission when the Commission works out its proposals, but not (primarily) when the Commission exercises delegated powers. In this context, we can also note that the Committee of the Regions is not an advisory body under the Euratom Treaty; it is not referred to in Article 106a Euratom. It is an 'EU specific' body.

[110] Michael Dougan argues that '[T]here is no qualitative difference in the nature of the instruments, rather according to the decision-making procedure by which the treaties specify they should be adopted'. See Dougan, 'The Treaty of Lisbon 2007: Winning Minds, Not Hearts', 638. See also Jonas Bering Liisberg, 'The EU Constitutional Treaty and its distinction between legislative and non-legislative acts – Oranges into apples?', Jean Monnet Working Paper 01/06.
[111] E.g., when the Commission is to propose Community research and training programmes under Article 7 Euratom.
[112] Article 31 Euratom.

Let us now focus on the Euratom Supply Agency, which is a specific Euratom agency. Its tasks will be examined in greater detail in Chapter 3 (Nuclear Industrial Development). It suffices here to say that the Supply Agency has (semi-)independent regulatory powers. We shall here instead briefly explore how the Supply Agency is different from other EU agencies, such as the European Aviation Safety Agency, the EU Agency for Fundamental Rights and the European Chemicals Agency. There are more than 30 agencies established under the EU Treaties. The first agencies were established in the 1970s. They are of two main types: executive and regulatory. They differ not only in their tasks, but also in their independence from the Commission.

Executive agencies, on the one hand, take their legal basis from a Council Regulation of 2002.[113] They can be described as being 'dependent on the Commission'.[114] The Commission creates them for a fixed period, controls their activities, and appoints their staff. Their location has to be at the seat of the Commission (either Brussels or Luxembourg). They have a specific task to help manage Community programmes. Regulatory agencies, on the other hand, are established either under Article 352 TFEU (previously Article 308 EC) or under 'sectoral' Treaty provisions. They are often characterised as 'independent'.[115] Regulatory agencies are 'decentralised': they are located in different Member States. Some Regulatory Agencies can adopt individual decisions with direct effect; some have a coordinating function (between national authorities); and some merely provide technical expertise to the Commission. Their autonomous

[113] Council Regulation (EC) No 58/2003 of 19 December 2002 laying down the statute for executive agencies to be entrusted with certain tasks in the management of Community programmes, OJ 2003 No. L11, 16 January 2003.
[114] On the distinction between 'independent agencies' and 'agencies dependent on the Commission', see Martin Shapiro, 'Independent Agencies', in Paul Craig and Gráinne de Burca (eds.), *The Evolution of EU Law* (Oxford: Oxford University Press, 2011), pp. 111–20. For an overview of the politics behind the creation of the EU agencies and their place in the EU institutional architecture, see R. Daniel Kelemen, 'European Union Agencies', in Erik Jones, Anand Menon, and Stephen Weatherill (eds.), *The Oxford Handbook of the European Union* (Oxford: Oxford University Press, 2012), pp. 392–403. See also Michelle Everson, Cosimo Monda, Ellen Vos (eds.), *EU Agencies in between Institutions and Member States* (Alphen aan den Rijn: Wolters Kluwer Law & Business, 2014).
[115] As Daniel Kelemen points out, these agencies are anything but 'independent' in view of the fact that regulatory decisions recommended by agencies must be formally adopted by the Commission according to the *Meroni* doctrine. See R. Daniel Kelemen, 'European Union Agencies', pp. 392–403.

power is limited in that they cannot be given the power to adopt general regulatory measures.[116]

What kind of agency is the Supply Agency? The Agency has a legal personality and financial autonomy,[117] but acts under the Commission's supervision.[118] The Commission shall issue directives to the Agency,[119] it has a right of veto over the Agency's decisions, and it appoints the Agency's Director General. The Agency's seat is currently in Luxembourg, in the same building as the Euratom divisions of the Commission.[120] An Advisory Committee established by the Treaty assists the Agency.[121]

Unlike other EU agencies, the Supply Agency has an expressed legal basis in the Treaty.[122] It is established by the Treaty itself and not by secondary legislation. The Euratom Treaty also details the Agency's functions. The only EU agency that is similar to the Supply Agency in this regard is the European Defence Agency (EDA). However, the EDA is not formally established by the Treaty, but by a secondary law instrument.[123]

The fact that the Agency is established directly by the Treaty and that its main functions are expressed in primary law is important for several reasons. First,

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[116] Communication from the Commission to the European Parliament and the Council – European agencies – The way forward, COM(2008) 135 final.
[117] Article 54 Euratom.
[118] Article 53 Euratom.
[119] Note that such directives are not directives in the sense of the legal instrument enumerated in Article 294 TFEU.
[120] Until 2004 the Supply Agency was situated in Brussels, while the part of the Commission that was dealing with the implementation of the Euratom Treaty was situated in Luxembourg. In 2004, the Commission decided to concentrate all Euratom activities to Luxembourg. It can be noted that there was no possibility to move all Euratom activities to Brussels instead. The Euratom Treaty stipulates that DG Safeguards shall be situated in Luxembourg. See Protocol on the Location of the Seats of the Institutions and of Certain Bodies, Offices, Agencies and Departments of the European Union, sole article, c; and Article 9.c of Decision 67/446/EEC and 67/30/Euratom of the representatives of the Governments of the Member States on the provisional location of certain Institutions and departments of the Communities, OJ 1967 No. 152, 13 July 1967, p. 18.
[121] The Advisory Committee works as the link between producers, users, and the Supply Agency. The Commission is required to consult the Committee on decisions relating to the Agency's capital; drawing-up of rules to determine the manner in which demand is to be balanced against supply; and preparation of the Agency's annual balance sheet and report.
[122] See Article 52 Euratom.
[123] Council Decision 2011/411/CFSP of 12 July 2011 defining the statute, seat and operational rules of the European Defence Agency and repealing Joint Action 2004/551/CFSP, OJ 2011 No. L183, 13 July 2011, p. 16.

the Member States have reserved for themselves the task to decide on the Agency's original design; the EU institutions have no say in this. Like the EDA, the Supply Agency also deals with sensitive issues. This may explain why the agencies' functions are detailed in the Treaties. Second, it is relatively difficult to change the Agency's role; a change requires a treaty amendment, which is (generally) harder to achieve than changes of secondary law. This means that the Supply Agency has a more consolidated position than other EU agencies.

Third, the Supply Agency's power can hardly be regarded as 'delegated' (at least not in the same sense as other EU agencies) because the Treaty confers the powers directly. This is probably the most important distinction between the Supply Agency and other EU agencies (and possibly also the EDA). This means that the restrictions the Court set up in the *Meroni* case[124] on what powers can be delegated to agencies, do not concern the Supply Agency. Indeed, as the CFI points out in the *ENU* case, and confirms in the *KLE* case (both cases are discussed in Chapter 3, 'Nuclear Industrial Development'):

> [W]here decisions concerning economic and commercial policy and nuclear policy are involved, the Agency has a broad discretion when exercising its powers. In those circumstances, review by the Court must in any event be confined to identifying any manifest error of assessment or misuse of powers.[125]

To conclude, the Supply Agency has very little in common with other EU agencies.[126] It can best be described as an agency *sui generis*; it has no equal under the EU Treaties.[127]

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[124] Case 9/56, *Meroni* v. *High Authority* [1958] ECR 133.
[125] Joined Cases T-458/93 and T-523/93, *ENU* v. *Commission* [1995] ECR II-2459, para 67. This was confirmed by the Court in Case C-161/97 P, *Kernkraftwerke Lippe-Ems GmbH (KLE)* v. *Commission of the European Communities* [1999] ECR I-2057, para 90. See also Opinion of Advocate General Léger delivered on 19 November 1998.
[126] R. Daniel Kelemen, 'European Union Agencies', pp. 392–403. See also Communication from the Commission – The operating framework for the European Regulatory Agencies, COM(2002) 718 final.
[127] It can be noted that the Commission has sought to reform the Agency and to sub-order it into a Directorates-General. But this has not been possible. The Agency's decisions can be subject to appeal to the Commission. If the Agency were to be sub-ordered by the Commission as a DG, an appeal procedure would not be credible.

2.2.3.5 Enforcement under the Euratom

In this context, we should also say a few words on enforcement under the Euratom Treaty.[128] The provisions on enforcement in the TFEU apply to the Euratom through the reference in Article 106a Euratom, but there are also some Euratom specific provisions. These specific provisions illustrate the urgency by which the treaty founders saw the nuclear field, especially activities that could entail a risk of some kind. One example is Article 38 Euratom, which provides for a special infringement procedure that applies in 'urgent' cases where a Member State has failed to comply with a Directive issued by the Commission to take 'all necessary measures' with regard to the level of radioactivity in the air, water, and soil.[129] The Commission or a Member State may bring the matter before the Court immediately, by way of derogation from the general infringement procedure in Articles 258 and 259 TFEU.

Another example is Article 83 Euratom, which provides that the Commission may impose sanctions on persons and undertakings in the event of an infringement of the obligations under the 'Safeguards' provisions. Member States shall ensure that the sanctions are enforced and that the infringements are remedied. Article 144 Euratom clarifies that the CJEU shall have unlimited jurisdiction in proceedings instituted by persons and undertakings against such sanctions imposed. Further, the Commission may call upon a Member State to impose sanctions in respect of an infringement committed by a person or undertaking to the Treaty to which the provisions of Article 83 do not apply (Article 145 Euratom). If the State does not comply with the request, the Commission may bring an action before the CFEU to have the infringement of which the person or undertaking is accused established.[130]

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[128] For a discussion on enforcement under the EU Treaties, see Marise Cremona (ed.), *Compliance and the Enforcement of EU Law* (Oxford: Oxford University Press, 2012).

[129] Article 38 Euratom provides that the Commission may issue recommendations to the Member States with regard to the level of radioactivity in the air, water and soil. In cases of urgency, the Commission may issue a Directive to the Member State to take 'all necessary measures'. If the Member State fails to comply with that Directive within the period laid down, the Commission or a Member State may bring the matter before the Court immediately, by way of derogation from Articles 258 and 259 TFEU.

[130] Article 157 Euratom provides that actions brought before the Court shall not have suspensory effect, but, if it considers that circumstances so require, it may order that the application of the contested act be suspended. The difference between this provision and Article 278 TFEU is that

2.2.4 Treaty Revision

As explained, since the Maastricht Treaty, the Euratom and the EU share the same provisions for treaty revisions. Article 106a Euratom now refers to the ordinary procedure for treaty revision (Article 48.2–48.5 TEU). The Maastricht Treaty repealed the separate Euratom provision for treaty provision.[131] What does it mean that the procedure is shared? Certainly, it does *not* mean that the treaties have to be revised at the same time. Only the Euratom Treaty can be revised, or only the TEU and TFEU.

The simplified treaty revision procedure (Article 48.6 TEU), which was introduced by the Lisbon Treaty, does not apply to the Euratom. However, the Euratom Treaty contains some specific simplified treaty revision procedures: Article 76 (Supplies), Article 85 (Safeguards), and Article 90 (Ownership). These procedures apply 'particularly if unforeseen circumstances create a situation of general shortage' (Article 76) or 'where new circumstances so require' (Article 85 and 90). The Council may 'amend' or 'adjust' the provisions (Article 76 respectively Article 90) or 'adapt the procedures' (Article 85). In all these cases, the Council shall act unanimously on a proposal from the Commission and after consulting the European Parliament. The Commission shall enquire into any request made by a Member State. Proposals for revision have been put forward, but a simplified revision has never been achieved.

We can note here a couple of interesting differences between the simplified procedures under the TEU and the Euratom. First, under the Euratom, the EU institutions take the decision alone; the Member States do not have to approve the changes. This stands in contrast to the simplified procedure in Article 48.6

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the Treaty itself may also provide for suspensory effect in certain cases. Also Article 164 Euratom and Article 299 TFEU are almost identical.

[131] Article 48 EU read: 'The government of any Member State or the Commission may submit to the Council proposals for the amendment of the Treaties on which the Union is founded.
If the Council, after consulting the European Parliament and, where appropriate, the Commission, delivers an opinion in favour of calling a conference of representatives of the governments of the Member States, the conference shall be convened by the President of the Council for the purpose of determining by common accord the amendments to be made to those Treaties. The European Central Bank shall also be consulted in the case of institutional changes in the monetary area.
The amendments shall enter into force after being ratified by all the Member States in accordance with their respective constitutional requirements'.

TEU, where the changes will only enter into force after they have been 'approved by the Member States in accordance with their respective constitutional requirements'. Second, while Article 48.6 TEU provides that the revision 'shall not increase the competences conferred on the Union in the Treaties', the Euratom Treaty does not set up such a limitation. In sum, the Euratom's specific simplified procedures seem more 'supranational' than the EU Treaty procedure because they do not make explicit that it is the Member States that are the 'Masters of the Treaty', holding on to the ultimate power of Treaty change.

2.2.5 Partial Membership

Is it legally possible for a State to accede to the EU, but choose not to accede to the Euratom? Likewise, can a Member State withdraw from the Euratom, but stay in the EU? Or, more unlikely, withdraw from the EU but remain a member of the Euratom? Article 106a Euratom refers to Articles 49 and 50 TEU,[132] which concern respectively the accession of new Member States and withdrawal.[133] Although the Euratom and EU are sharing these provisions, there is nothing that prevents 'partial membership', i.e., a State may apply for only EU membership or Euratom membership or withdraw from only the EU or the Euratom. One might argue that Article 49 TEU refers to membership of the 'Union' and that it is not simply an accession procedure, but an 'accession to the Union' procedure (it would then be less clear if Article 49 TEU could be used for membership of the Union without membership of Euratom). In the same vein, one might argue that Article 50 TEU concerns a 'withdrawal from the Union' procedure. The view defended here, however, is that 'partial membership' is legally possible (i.e.,

[132] Article 49 TEU provides that '[a]ny European State which respects the values referred to in Article 2 and is committed to promoting them may apply to become a member of the Union'.
[133] Accession and withdrawal are here treated simultaneously, although, as Allan F. Tatham rightly points out, 'the rules relating to these procedures are rather more different and are not a mirror image one to the other'. See Allan F. Tatham, '"Don't Mention Divorce at the Wedding, Darling!": EU Accession and Withdrawal after Lisbon' in Andrea Biondi and Piet Eeckhout Stefanie Ripley (eds.), *EU Law After Lisbon* (Oxford: Oxford University Press, 2012), pp. 128–54. On withdrawal from the EU, see also, Jochen Herbst, 'Observation on the Right to Withdraw from the European Union: Who are the "Masters of the Treaties"?' (2005) 6 *German Law Journal* 1755–60; and Adam Łazowski, 'Withdrawal from the European Union and Alternatives to Membership' (2012) 37 *European Law Review* 523–40. On withdrawal from the EEC (and thus prior the withdrawal clause, see e.g., J.H.H. Weiler, 'Alternatives to Withdrawal from an International Organization: The Case of the European Economic Community' (1985) 20 *Israel Law Review* 282–298.

partial membership in the Euratom or the EU). That is because the second paragraph of Article 106a Euratom clarifies that the references to the 'Union' in the provisions referred to in paragraph 1 (*inter alia*, Article 49 and 50 TEU), shall be taken as references to the Euratom.[134] In other words, Article 49 and 50 TEU become in this way 'procedures of the Euratom'.

These possibilities for 'partial membership' are not possible when it comes to other 'policy areas' under the EU Treaties. In other words, under the TEU and the TFEU, there is no mechanism for Member States to opt-out from policy areas unless this is determined and specifically negotiated within an Intergovernmental Conference. Such opt-outs are then laid down in protocols, which are to be ratified in accordance with the Member States' constitutional requirements.[135] Of course, the Member States could also opt-out in this way from parts of the Euratom. But the possibility for 'partial membership' through withdrawal (or accession) indicates that the Euratom is not just another policy area. Only the Euratom allows for 'partial membership' as a form of flexibility.[136]

In practice, however, there is not a great difference between opt-outs from policy areas and partial withdrawal from the Euratom (or the EU). In both cases, a special negotiation and a special protocol would be needed. But there is a significant difference here. Article 50 TEU provides for the possibility to invoke a unilateral withdrawal *right*; is has been made explicit that the Member States may withdraw from the EU (or only from the Euratom). The Member States do not have such a right when it comes to 'opt-outs'. And pointing to the existence of a right could make it easier for Member States that would want to withdraw from the Euratom than if no such right exists.

Although legally possible, partial membership would, however, likely create some practical difficulties as the Euratom and EU are sharing the same

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[134] Article 106.a(2) Euratom reads: Within the framework of this Treaty, the references to the Union, to the 'Treaty on European Union', to the 'Treaty on the Functioning of the European Union' or to the 'Treaties' in the provisions referred to in paragraph 1 and those in the protocols annexed both to those Treaties and to this Treaty shall be taken, respectively, as references to the European Atomic Energy Community and to this Treaty.

[135] E.g., Denmark's opt-out from joining the EMU. See Protocol (No 16) on Certain Provisions Relating to Denmark.

[136] In this context, we can also note that the provisions on enhanced cooperation do not apply to the Euratom (because they are not listed in Article 106a.1 Euratom).

institutions. The institutions would have to have a different composition depending on whether it is an issue decided by the Euratom or EU. This could make it more complicated to adopt measures on a joint legal basis (one in the EU Treaties and one in the Euratom).

More importantly, the political costs of withdrawal from the Euratom could be very high. One kind of cost would be reputational. As we shall explain in Chapter 5 ('Nuclear Safety'), the Euratom has recently adopted its own framework of nuclear safety legislation. If a Member State would withdraw from the Euratom, this could be detrimental to the image and perception of both the EU and Euratom as international actors, beyond the field of nuclear energy (e.g., environmental protection). The same could be said in relation to other Euratom activities (e.g., non-proliferation). An even more serious consequence involves a situation where (certain) Member States start making demands on opt-outs: the opening of Pandora's box.

2.2.6 Financial Provisions

Just a few words shall be said about the financial provisions. Initially, the three Communities contained separate financial provisions,[137] and separate budgets were drawn up.[138] Many changes have been made in these provisions over the years. The most important change for present purposes is the Merger Treaty, which introduced a general budget. The Lisbon Treaty repealed most, but not all, of the Euratom Treaty's financial provisions and replaced them with a reference from Article 106a Euratom to the financial provisions in the TFEU.[139] When legislation is drawn up, Article 106a Euratom is referred to as a joint legal basis (together with provisions in the TFEU).[140] This indicates that the Euratom is seen as a separate legal regime.

[137] Articles 171 to 183 Euratom.
[138] The Article 172 Euratom stipulated different rules for the 'operational budget' (or 'working budget') and the 'research and investment' budget (such a division was not made under the EEC Treaty).
[139] Articles 171, 172.4, 176, and 182 Euratom are still in force.
[140] Council Decision on the system of own resources of the European Union, 12 February 2014 (not yet published in the Official Journal).

2.2.7 The Separate Legal Personality

The merger of the EC and the EU into a single entity with a single legal personality is often presented as one of the most significant changes wrought by the Lisbon Treaty. It gives clarity to the question of whether the EU can act independently on the international scene – and more important for the present purposes – it is supposedly an important feature of the EU as a single and unitary entity. This seems to suggest that there is a link between the concept of a legal regime and the existence of an international legal personality. Can the existence of a legal personality be understood as another facet of the question of legal regime? All the three original Communities were vested with separate legal personalities.[141] The Euratom still has its own separate legal personality, even after the Treaty of Lisbon. Does the fact that the EU and Euratom have separate legal personalities provide an answer to the question of whether the EU and the Euratom form separate legal regimes or one single legal regime?

In order to answer these questions, we first need to say a few words on how the concept of a legal personality of international organisations can be understood. There is no consensus as to what kind of concept this is and there is no general understanding of how such a legal personality can be established. While some commentators understand it as a normative concept, with certain implications, other commentators see it as a formal concept, which simply means that an entity is subject to international rights and obligations.[142]

Klabbers explains that there is an important distinction between the so-called 'will theory' and 'objective theory'.[143] The 'will theory' foresees a formal statement in the constitutive instrument of the organisation. The 'objective theory' posits that an organisation has to possess certain features in order to be vested with a legal personality. There must be institutions or organs in place that autonomously conduct the foreign relations on behalf of the organisation.[144] There must also be some kind of continuity of this function – the institutions or

[141] Article 210 EEC, Article 184 Euratom and Article 6 ECSC. The EU's legal personality is found in Article 47 TEU.
[142] See e.g., Kelsen, General Theory of Law and State, p. 250.
[143] See Jan Klabbers, 'Presumptive Personality: The European Union in International Law', in Martti Koskenniemi (ed.), *International law aspects of the European Union* (The Hague: Kluwer Law International, 1998), pp. 231–53.
[144] See Hahn, 'Euratom: The Conception of an International Personality', 1047.

organs have to be permanent.[145] According to the 'objective theory', a formal statement cannot be a *sufficient* condition for a conclusion that such a legal personality exists; it is only one among other evidentiary facts.[146] Without substantive provisions that give an organisation the competence to conduct foreign relations, a formal statement of legal personality makes little sense. The concept of legal personality would just be a strictly formalistic, possibly empty, idea. It is, as one commentator describes it, a 'shell without content'.[147] If legal personality is to be seen as a strict formalistic legal understanding (i.e., the 'will theory'), the concept of legal personality has limited explanatory value; it cannot explain the legal nature of an organisation. For the concept to be meaningful, it has to include the powers or capacities that are attributed to the organisation. 'Capacity' is thus a necessary element in the concept of legal personality. A legal personality also needs powers to be materialised.

Hahn argues that the ECSC did not have the competence 'to conclude agreements of its own with third states in the very important field of commercial relations'.[148] The legal personality of the ECSC was therefore more 'nascent and potential than materialized'.[149] For Wessel, however, it is not possible to argue that an organisation is vested with a 'partial' legal personality; international legal personality either exists or does not exist.[150] He argues that it is important to distinguish between the concept of legal personality and legal capacity. In his view, an international legal personality exists '[w]henever a treaty purports to establish a new entity under international law'.[151] Legal personality is 'nothing more than independent existence within the international legal system',[152] but it is 'the capacities of the entity that ultimately reveal the "independent" position of a legal person'. The capacities of a legal personality can be seen as general

[145] See, for example, Order of the President of the General Court 22 July 2010 in Case T-271/10 where the Court held that the European Union Police Mission (EUPM) had no legal personality: it was 'a simple activity' with a limited duration, and could thus not be classified as a body, office or agency for the purpose of Article 263 TFEU.
[146] Hahn, 'Euratom: The Conception of an International Personality', 1045.
[147] Ibid., 1046.
[148] Hahn, 'Euratom: The Conception of an International Personality', 1052–3.
[149] Ibid.
[150] Wessel, 'Revisiting the International Legal Status of the EU'.
[151] Ibid., 509–10.
[152] Ramses A. Wessel, 'The Inside Looking Out: Consistency and Delimitation in EU External Relations' (2000) 37 *Common Market Law Review* 1135–71, at 1140.

competences of an international entity, e.g., the capacity to bring international claims, treaty-making capacity, the capacity to establish diplomatic relations, or the capacity to recognise other subjects of international law.[153] The legal capacity of entities other than states is, however, never comprehensive; they only exist in relation to the specific competences the founding states have attributed to them. Von Bogdandy opposes this strict distinction between legal personality and legal capacity. He argues that it is not possible to show independence without capacities. In his view, the existence of capacities is a necessary component of the concept of legal personality. Legal personality would then, in the words of Kelsen, best be described as the 'personified unity of norms'.[154]

Recognition of the legal personality of international organisations and states is yet another criteria for assessing whether an international legal personality exists.[155] Explicit acts of recognition of organisations are however rare and do not seem necessary.[156]

2.2.7.1 The Significance of Euratom's Legal Personality

The Euratom's legal personality is explicitly stated in Article 184 Euratom; the Euratom fulfils the simple requirement of the 'will theory'. But as the 'objective theory' posits, an organisation also needs substantive powers and a formal statement cannot be a sufficient condition. It is the competence conferred on an

[153] See Wessel, 'Revisiting the International Legal Status of the EU', 511.
[154] Kelsen, General Theory of State, p. 93.
[155] As Hahn explains, the treatment of international organisations as international persons is 'contingent under law upon the assessment by third parties of the effectiveness of the body created by the members'. Hahn, 'Euratom: The Conception of an International Personality', 1049.
[156] Klabbers, 'Presumptive Personality', p. 242. Klabbers rejects that the international legal personality is to be understood as a normative concept. He develops an alternative approach: the 'presumptive personality'. In his view, a formal statement is not a necessary condition for the existence of a legal personality. The activities of the Union can only be understood on the *presumption* that the Union possesses an international legal personality. He bases his argument on the ICJ's decision in the Reparations for Injuries case, where the ICJ concluded that the UN had a legal personality notwithstanding the fact that there was no formal statement to this effect in the UN Charter – the legal personality was presumed. This case clarified that an international organisation can have an international legal personality even without a formal proclamation in its constitutive instrument (Reparation for Injuries suffered in the service of the United Nations, Advisory Opinion of April 11th 1949). The Court concluded that an organisation comprising the vast majority of the members of the international community had the capacity to bring an international claim against a non-member nation. See Klabbers, 'Presumptive Personality', pp. 231–53.

organisation that decides the exact scope of legal personality. What is the scope of Euratom's legal personality? Article 101 provides Euratom with a general competence allowing the Community, 'within the limits of its powers and jurisdiction' to conclude agreements or contracts with a third State, and international organisation or a national of a third State. As Eeckhout points out, this provision establishes a 'clear parallelism between internal and external powers'.[157] Indeed, the Euratom has concluded many international agreements; there is no doubt that it has a legal personality, which is materialised. But does it really make sense to say that the Euratom has a 'separate' legal personality?

According to the 'objective theory', a legal personality exists if an organisation has organs, distinct from those of the Member States. There is no doubt that the Euratom has organs that are 'distinct' from its Member States. The question is rather if the Euratom has organs that are distinct from the EU. Initially, the three original Communities were sharing only the same Court and Parliament. Since the Merger Treaty, they have been sharing also the same Commission and Council. Since the Lisbon Treaty, the Euratom and the EU even share the same institutional provisions (save, as we have seen, for certain provisions). Thus, the Euratom does have organs that are distinct from the Member States, but it does *not* have organs that are distinct from the EU.[158]

Clearly, the practical implications of two separate legal personalities, one for the EU and one for Euratom, are not very far-reaching. As von Bogdandy rightly points out (in relation to the pre-Lisbon question of whether the EU had a legal personality), the European institutions will in any case fulfil the function of the

[157] Piet Eeckhout, *External Relations of the European Union: Legal and Constitutional Foundations* (New York: Oxford University Press, 2004), p. 59. But the Euratom's external competence is not as broad as it appears to be. In the WTO Opinion, the Court held that [s]ince the Euratom Treaty contains no provisions relating to external trade, there is nothing to prevent agreements concluded pursuant to Article 113 of the EC Treaty from extending to international trade in Euratom products'. Opinion 1/94, WTO [1994] ECR I-5267. This Opinion is criticised in Chapter 3 ('Nuclear Industrial Development') of this dissertation.

[158] In a formal sense, however, it could be argued that the Euratom still has its own organs and institutions. In several provisions, the Euratom Treaty refers to the 'institutions of the Community' and to 'its institutions'. See e.g., Article 188, 189, 192, 194, 195 Euratom.

holder of authority and bearer of duties.[159] The Euratom's legal personality seems to make little sense.

Can the mere existence of a 'separate' legal personality entail specific characteristics for the Euratom as an entity and can it be argued on this basis that it forms a separate legal regime? The difficulty in answering this question seems to lie in establishing a link between the concept of legal personality and the concept of 'legal regime'. Wessel seems to make this connection when he claims that a legal personality exists whenever a treaty purports to establish a new entity under international law.[160] Von Bogdandy argues that the existence of legal personality does not have any explanatory value in determining the legal structure of an organisation[161]; the EU's capacity to interact with other subjects of international law (pre-Lisbon) was only 'one aspect amongst its competences'. He explains that it was not appropriate to deduce the EU's legal organisational structure from its international law status. If we accept von Bogdandy's arguments, we cannot easily assume that there is a link between legal personality and a legal regime; we cannot conclude that the existence of legal personality provides an answer to the legal regime question.

Nonetheless, it should be pointed out that it does not follow that separate legal personalities are unproblematic. Legal personality gives a signal to third parties, who need to know who they are dealing with. The question is whether third parties perceive the Euratom as something different from the EU.

2.3 Treaties with a Different Ethos?

The next issue to consider concerns the 'ethos' of the Euratom and the EU. The definition of 'ethos' used here is the one suggested by Williams: 'the collective disposition, character and fundamental values that capture the existent sense of the EU as an institution in terms of both its particular formally constructed

[159] Von Bogdandy, 'The Legal Case for Unity', 893.
[160] Wessel, 'Revisiting the International Legal Status of the EU', 509–10.
[161] Von Bogdandy, 'The Legal Case for Unity', 892.

arrangement and its "general pattern of activity"'.[162] This definition is problematic as we do not know what the 'existent sense' consists of, or how it is any different from 'ethos'. Yet, we will accept this definition in search of a better one, as 'ethos' is an important aspect of the legal regime question, and one that we should take it into consideration when examining the relationship between the Euratom and the EU.

Let us start by examining the treaty objectives, which, I believe, can tell us something about the ethos. The Euratom's general task is set out in Article 1 Euratom:

> It shall be the task of the Community to contribute to the raising of the standard of living in the Member States and to the development of relations with the other countries by creating the conditions necessary for the speedy establishment and growth of nuclear industries.

Thus, the Euratom has a two-fold task: (1) to contribute to the raising of the standard of living in the Member States; and (2) to contribute to the development of relations with the other countries. It shall accomplish this task by 'creating the conditions necessary for the establishment and growth of nuclear industries'. The EEC's general task was set out in Article 2 EEC. The focus was on the establishment of a common market, economic integration,[163] and, generally, to promote 'an accelerated raising of the standard of living and closer relations between the States belonging to it'.

A couple of things should be noted here. First, 'development' was the focus for both Communities. Both the Euratom and EEC stipulated that they were to contribute to the 'raising of the standard of living'. The Treaties differed as to the means to perform these tasks. While the EEC would establish a common market and in other ways promote economic integration, the Euratom would promote the nuclear industry. Second, the EEC's task was only inward-looking. It aimed to 'promote [...] closer relations between the Member States'. By contrast, the

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[162] Andrew Williams, *The Ethos of Europe: Values, Law and Justice in the EU* (Cambridge: Cambridge University Press, 2010), p. 10.

[163] Article 2 EEC read: 'The Community shall have as its task, establishing a common market and progressively approximating the economic policies of Member States, to promote throughout the Community a harmonious development of economic activities, a continuous and balanced expansion, an increase in stability, an accelerated raising of the standard of living and closer relations between the States belonging to it'.

Euratom's second main task was directed to the external world; it would 'contribute to the relations with the other countries'.

One aspect of the 'ethos' is linked to economic theory on how to achieve development. The means to achieve the Euratom objectives were relatively *dirigiste*; the Euratom would exert a direct influence over investment, although it also showed some market-liberalising elements. As will be discussed in Chapter 3 ('Nuclear Industrial Development'), the Euratom contained provisions on all four freedoms: goods, persons, services, and capital. Therefore, it would be wrong to characterise the Euratom as *dirigiste* in general. The EEC focused instead on regulation and market liberalisation, although it also showed some elements that can be regarded as *dirigiste* (e.g., the agricultural policy).

The original three Communities were 'functional' in the sense that they were 'issue specific'. We have seen that they contained *tasks* ('raising of the standard of living') as opposed to what later became *objectives* (which seem less 'functional'), and there were specific *means* to perform these tasks (in the case of Euratom, the means were 'sector specific' as opposed to the broader economic means under the EEC). However, there were still no 'values'. The original Communities shared these 'functional' features with many other international organisations. It should be pointed out that the EEC also contained symbolic statements. The EEC Treaty preamble stated that the overarching objective of the integration project was to create an 'ever closer union among the peoples of Europe'; integration was a value in itself. This 'meta-telos' allowed and even 'insisted' on evolution.[164] The Amsterdam Treaty lifted this phrase to the treaty text and turned it into a 'motto' of the EU. It is now not only referred to in Article 1 TFEU and the preambles of the Treaties (TEU and TFEU), but also in the preamble to the Charter of Fundamental Rights.

The EEC soon started to evolve[165] into what we here term a 'humanity' entity. By this we mean an entity that positions 'the Individual in the centre of its

[164] This is not to say that this statement was in any way the *cause* of or somehow enabled evolution. It is merely one telling fact that the EEC Treaty contained the grains that allowed evolution.
[165] J.H.H. Weiler, 'The Transformation of Europe' (1991) 100 *The Yale Law Journal* 2403–83.

construct'.[166] The development of human rights within the EU is one important aspect of this evolution. This development started in the 1970s with the *Stauder* Case[167] and continued over the years in a progression of cases. Most recently, the Lisbon Treaty took a decisive step in placing human rights at the forefront.[168] It made the Charter of Fundamental Rights legally binding and introduced a provision listing the Union's values (Article 2 TEU), including respect for human rights (human dignity, freedom, democracy etc.).[169] The introduction of the citizenship is another aspect of this evolution.[170]

The position defended here is that the Euratom could still be characterised as a 'functional' Community. In contrast to the EU, the Euratom's tasks (or objectives) have never been amended. They are the same as when the Treaty was adopted. Moreover, the Euratom is lacking a 'meta-telos' corresponding to 'an ever closer union'. Indeed, the Treaty's preamble recognises that 'nuclear energy represents an essential resource for the development and invigoration of industry and will permit the advancement of the cause of peace'. But the formulation 'the advancement of the cause of peace' reads here more like a 'by-product' than a proper 'meta-telos'. More importantly, the Charter of Fundamental Rights is not formally applicable to the Euratom Treaty; there is no link between the Charter and the Euratom.

Moreover, there is also no direct link between the Euratom and the values listed in Article 2 TEU. The values apply, however, through Articles 7 and 49 TEU. Both

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[166] See J.H.H. Weiler, Editorial, 'Individuals and Rights, The Sour Grapes' (2010) 21 European Journal of International Law 277–80.
[167] Case 29/69, *Stauder* v. *City of Ulm* [1969] ECR 419. See also Case 11/70 *Internationale Handelsgesellschaft* [1970] ECR 1125.
[168] See Piris, The Lisbon Treaty, p. 71 (citing J. Rifkin, *The European Dream* (New York: Jeremy P. Tarcher/Penguin, 2004)): 'Human rights is at the "heart and soul"' of the Constitution.'
[169] Following the Lisbon Treaty revision, the Union's values are more clearly stated. Article 2 TEU reads: 'The Union is founded on the values of respect for human dignity, freedom, democracy, equality, the rule of law and respect for human rights, including the rights of persons belonging to minorities. These values are common to the Member States in a society in which pluralism, non-discrimination, tolerance, justice, solidarity and equality between women and men prevail'. In von Bogdandy's view, the values in Article 2 TEU are to be understood as 'founding principles'. See von Bogdandy, 'Founding Principles of EU Law'. On that Article 2 TEU can have legal effects, see also Piris, The Lisbon Treaty, p. 71.
[170] Cf. O'Brien, Charlotte, 'I Trade, Therefore I am: Legal Personhood in the European Union' (2013) 50 Common Market Law Review 1643–84; and Niamh Nic Shuibhne, 'The Resilience of EU Market Citizenship' (2010) 47 *Common Market Law Review* 1597–1628, arguing that the EU citizenship has evolved beyond a 'market citizenship' construction. According to this line of reasoning, the introduction of citizenship would not be evidence of a 'transmuted polity'.

of these treaty articles are enlisted in Article 106a Euratom (which, as mentioned, enlists provisions that apply to the Euratom). Article 7 TEU sets up the procedure to 'determine that there is a clear risk of a serious breach by a Member State of the values referred to in Article 2' and Article 49 TEU stipulates that a State that wishes to become a member of the EU has to respect the values in Article 2 TEU. So, for Euratom and EU membership, the same requirements to respect the values apply. Introducing the values into the Euratom means bringing in an atypical element into a treaty that in all other respects lacks a 'humanist' dimension.

2.3.1 Expansion of Competences

Another aspect of the EU's 'evolved ethos' concerns the expansion of competence.[171] Over the years, the EU's competences have expanded quite significantly.[172] The EU only has derived powers, just like any other international organisation. The limits of Union competences are governed by the principle of conferral. This principle is defined in Article 5.2 TEU, which states that the Union shall act only within the limits of the competences conferred upon it by the Member States in the Treaties to attain the objectives set out therein.[173] The Lisbon Treaty added the clarification that 'competences not conferred upon the Union in the Treaties remain with the Member States'. The consequence is that the EU is lacking 'Kompetenz-Kompetenz', i.e., the EU cannot itself decide to expand its competence.[174] This principle also applies to the Euratom.[175]

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[171] For a broad discussion on the discrepancy between the allocation of powers provided in the Treaties and legal practice, see Loïc Azoulai, *The Question of Competence in the European Union* (Oxford: Oxford University Press, 2014).

[172] See the literature on 'competence creep', in particular Mark A Pollack, 'Creeping Competence: The Expanding Agenda of the European Community' (1994) 14 *Journal of Public Policy* 95; Stephen Weatherill, 'Competence Creep and Competence Control' (2004) 23 *Yearbook of European Law* 1–55; and Paul Craig, 'Competence: Clarity, Conferral, Containment and Consideration' (2004) 29 *European Law Review* 323.

[173] Paul Craig and Gráinne de Búrca, *EU Law: Text, Cases and Materials* (Oxford: Oxford University Press, 2011), pp. 74–5.

[174] The Court found the principle in the context of the ECSC Treaty. See Joined Cases 7/56, 3-7/57, *Dinecke Algera* v. *Common Assembly of the European Coal and Steel Community* [1957–58] ECR 39. The Court stated that '[t]he Treaty rests on a derogation of sovereignty consented by the Member States to supranational jurisdiction for an object strictly determined. The legal principle at the basis of the Treaty is a principle of limited competence. The Community is a legal person of public law and to this effect it has the necessary legal capacity to exercise its functions but only those'.

According to Wyatt, the EU's political ambitions necessitate regular increases in its attributed powers.[176] The EU's competence has expanded as a result of the fact that the EU's legislative institutions have interpreted the scope of the competences broadly. As Wyatt points out, the Court has tolerated and also itself contributed to this broad reading. The CJEU had an important role in this expansion, but the Member States have also been willing to fill eventual 'legitimacy' gaps by treaty amendments. For every treaty revision, new objectives and competences have been added and the old ones adjusted. While the original EEC focused on economic integration, the EU is now pursuing a range of socio-political objectives in addition to the economic ones, including social protection, gender equality, and environmental protection.[177] In line with this expansion, the Lisbon Treaty added some objectives, which, as Jean-Claude Piris puts it, 'go in the direction of respecting human values and caring for the well-being of the people'.[178] As explained, if the EEC was initially predominantly 'functional', this expansion has made the EU predominantly (or at least increasingly) 'humanist'. We shall add that not all new competences had this effect. As will be shown in Chapters 3 to 6, this expansion of competence has also created overlaps with the Euratom Treaty. There were initially few such overlaps, as the original EEC was limited to the common market and economic integration.

For a long time, there was no need to amend the Euratom's objectives. A 'competence creep' did not take place. No 'erosion of enumerated powers' had occurred, and there was no discrepancy between activities and objectives. But as we shall demonstrate in Chapters 3 to 5, the CJEU and the EU's political institutions have in recent years given some Euratom provisions a broad interpretation. As a result, it will be argued, the Euratom's objectives can no longer be said to reflect reality.

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[175] As we shall see in Chapters 3 to 6, the Euratom contains some specific simplified treaty revision procedures, where the EU institutions are to take the decision alone. These procedures could be characterised as exceptions to this principle.
[176] Derrick Wyatt, 'Is the European Union an Organization of Limited Powers?', in Anthony Arnull et al. (eds.), *Constitutional Order of States: Essays in EU Law in Honour of Alan Dashwood* (Oxford: Hart, 2011), pp. 3–23.
[177] Note that the Lisbon Treaty merged the objectives of the EC Treaty and the EU Treaty.
[178] Piris, The Lisbon Treaty, p. 73.

2.3.2 Article 352 TFEU and 203 Euratom: 'The Locus of True Expansion'?

How can we explain the fact that while the scope of the EU Treaties has expanded, the scope of the Euratom Treaty is more or less the same as in the 1950s? As Weiler puts it, the 'locus of true expansion',[179] lies with Article 352 TFEU (ex Article 235 EEC). This provision, often referred to as the 'flexibility clause', empowers the Council to act 'if action by the Union shall prove necessary, within the framework of the policies defined in the Treaties, to attain one of the objectives set out in the Treaties, and the Treaties have not provided the necessary powers'. A special legislative procedure applies, where the Council shall act by unanimity and the European Parliament shall give its consent. Pre-Lisbon, the measures had to be linked to the common market. Post-Lisbon, the link to the common (internal) market is no longer a requirement.[180]

The Euratom Treaty contains a corresponding provision, Article 203 Euratom. It reads:

> If action by the Community should prove necessary to attain one of the objectives of the Community and this Treaty has not provided the necessary powers, the Council shall, acting unanimously on a proposal from the Commission and after consulting the European Parliament, take the appropriate measures.

How is this provision different from Article 352 TFEU? What are the similarities? Both Articles 352 TFEU and 203 Euratom contain a positive and negative condition to its use: they can be used to attain one of the (respective) treaty objectives (the 'positive' condition) and the existence of other provisions will preclude its use (the 'negative' condition).[181] One difference concerns the role of the European Parliament. Under Article 352 TFEU, the Parliament shall give its consent to legislation whereas Article 203 Euratom provides that the Parliament alone shall be consulted.[182] Another difference is that Article 352 TFEU provides

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[179] Weiler, 'The Transformation of Europe', 2445. But see Declaration No. 41 and 42 on Article 352 TFEU.

[180] For a general account of Article 352 TFEU and its predecessors, Article 235 EEC and 308 EC, see e.g., Kieran St Clair Bradley, 'Powers and Procedures in the EU Constitution: Legal Bases and the Court', in P. Craig and de Búrca (eds.), *The Evolution of EU Law* (Oxford: Oxford University Press, 2011), pp. 85–109.

[181] Bradley, 'Powers and Procedures in the EU Constitution'.

[182] Before Lisbon, (ex) Article 308 EC provided that the European Parliament shall only be consulted. Thus, Article 308 EC and Article 203 Euratom were similar in this respect. The Lisbon Treaty did not change Article 203 Euratom.

that the Commission shall draw the attention of national parliaments to proposals based on that provision. There is no such requirement under Article 203 Euratom (see more on the subsidiarity principle).

The 'flexibility clause' in Article 352 TFEU was initially only sparsely used, but from the 1970s onwards, it was frequently applied and broadly interpreted. Both the ECJ and legal scholars criticised the legislator's broad interpretation: there seemed to be virtually no limit to what could fit into the generally termed EC Treaty objectives.[183] Over the years, Article 203 Euratom has been used about 20 times and initially with much hesitation. It was used for the first time in the 1970s. More than half of the measures were adopted in the 2000s. This indicates that new areas not foreseen by the Treaty have emerged. It could also indicate that the legislator is interested in applying the Euratom Treaty as a legal basis more generally. It can also be noted that Article 203 Euratom is often applied together with Article 352 TFEU, as a joint legal basis.[184]

Thus, the Euratom Treaty includes a flexibility clause that makes 'expansion' possible. But the Euratom competence has not been amended accordingly in the course of its use (as is the case for the EU Treaties). In other words, Article 203 Euratom has not functioned as the 'locus for expansion' of Euratom competence. Could this lack of expansion be explained by how the Treaty is constructed? This possibility shall be explored below.

2.3.3 Euratom's Limited Scope

The Euratom is, like the EU, an organisation of derived powers. But in comparison to the EU, its scope is less open-ended: the Euratom Treaty is not only limited to a specific sector – the nuclear industry – but to specifically

[183] See, in particular, Weiler, 'The Transformation of Europe', 2446. See, for example, Case 8/73, *Massey-Ferguson* [1973] ECR 897, para 4.

[184] These provisions were, for example, applied as the joint legal bases for the establishment of the Community Civil Protection Mechanism, which can be used for all kinds of emergencies, including nuclear accidents and radiological emergencies. Council Decision 2007/779/EC, Euratom of 8 November 2007 establishing a Community Civil Protection Mechanism (recast) OJ 2007 No. L314, 1 December 2007, p. 9, first established by Council Decision 2001/792/EC, Euratom of 23 October 2001 establishing a Community mechanism to facilitate reinforced cooperation in civil protection assistance interventions, OJ 2001 No. L297, 15 November 2001, p. 7.

defined products and industries within that sector. The scope of some treaty chapters is defined in annexes. Chapter 1 on 'Promotion of Research' is linked to Annex I (Article 4). Only the areas listed in the annex can be researched. We find the same construction for Chapter 4 on 'Investment', which is linked to Annex II, and Chapter 9 on 'Nuclear Common Market', which is linked to Annex IV.[185] Under the EU Treaties, a similar construction is only found in the policy area 'Agriculture and Fisheries'.[186]

The Euratom Treaty is also limited by way of definitions: Chapter 6 on 'Supplies' and Chapter 7 on 'Safeguards' only concern 'ores, source materials and special fissile materials' as defined in Article 197 Euratom.[187] Chapter 8 on 'Ownership' is even narrower; it only concerns 'special fissile materials'. Hence, the Euratom can be described as an organisation of limited or 'hedged' scope. It is difficult to say what effect Euratom's limited scope has had for the expansion of competences and whether it makes expansion more difficult.

2.3.4 Subsidiarity

Subsidiarity is an important concept for the delineation of boundaries between EU competence and Member State competence. It is found in Article 5.3 TEU and it permits the Union to act 'only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, […] but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level'. The subsidiarity principle does not apply for policies falling within the EU's exclusive competence, but only where the competence is shared between the EU and the Member States.

The principle of subsidiarity has not been consolidated in the Euratom Treaty. In the early 1990s, there was some discussion of introducing it in all three

[185] Euratom Treaty's Chapter 5 on 'Joint Undertakings' (under Title II) is linked to Annex III (Article 48) in that it lists certain advantages that may be made applicable to Joint Undertakings.
[186] Article 38 TFEU provides that the products subject to the provisions are listed in Annex I.
[187] Thus, these provisions are narrower than the provisions in Chapter 9 on the 'Nuclear Common Market'. Note also that 'ores' is defined by Euratom Council Regulation No 9 defining the concentrations in ores as provided for in Article 197 (4) of the Treaty establishing the European Atomic Energy Community, OJ 1960 No. 12, 22 February 1960, p. 482, English special edition: Series I Chapter 1959–1962, p. 43.

Community Treaties,[188] but Maastricht eventually included it only in the EC Treaty. The Lisbon Treaty did not change this. The Euratom Treaty neither contains an autonomous provision on subsidiarity nor a reference to Article 5.3 TEU. Why is that? A major reason for introducing the principle in the EC Treaty was to give the Member States some control over the expansion of EC competence. The subsidiarity principle would compensate the Member States for the loss of the right to veto decisions following the Maastricht Treaty.[189] As there had been no major expansion of Euratom competence, there was no need for introducing the subsidiarity principle. It can also be argued that introducing the principle in the EC Treaty would strengthen the Community's federal features and that this was not desirable when it comes to the Euratom Treaty.

However, the absence of an express provision has not prevented the Commission from referring to the subsidiarity principle in its proposals for Euratom legislation. It should also be recalled that subsidiarity was already operating within the EEC before the Maastricht Treaty expressly introduced it.[190] Moreover, as the following chapters on substantive issues illustrate, the Euratom contains both exclusive and shared competence.[191]This clarifies that the absence of the principle has nothing to do with the nature of competence.

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[188] The European Parliament suggested that the subsidiarity principle would be inserted into all three Community Treaties. See Resolution of the European Parliament on the Principle of Subsidiarity, adopted on 21 November 1990, OJ 1990 No. C324, p. 167.

[189] For an account of the emergence of the subsidiarity principle, see Koen Lenaerts, 'The Principle of Subsidiarity and the Environment in the European Union: Keeping the Balance of Federalism' (1993) 17 *Fordham International Law Journal* 846–95, at 852 et seq. See also Xavier Groussot and Sanja Bogojević, 'Subsidiarity as a Procedural Safeguard of Federalism', in Loïc Azoulai (ed.), *The Question of Competence in the European Union* (Oxford: Oxford University Press, 2014), pp. 234–52.

[190] As Koen Lenaerts explains, subsidiarity was first introduced in relation to the regulation of the environment. Koen Lenaerts, 'The Principle of Subsidiarity and the Environment in the European Union'.

[191] The competence catalogue in the TFEU (Article 2–6) does not give us much guidance here, as it does not list Euratom policy areas (and there is no reference in the Euratom Treaty to the catalogue, so it does not 'apply' to the Euratom either). It can be noted that the Commission has not been consistent in its approach on the application of the subsidiarity principle when it comes to the nature of Euratom competence. In the Commission's proposal on the most recent BSS Directive, the Commission states that the principle does not apply because the competence on 'Health and Safety' is 'exclusive'. The legal basis is Article 30 and 31 Euratom. In the proposal for a directive on nuclear waste, however, the Commission states that the principle applies, although the legal basis is the same. See Proposal for a Council Directive laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, COM(2011) 593 final ('The exclusive nature of Euratom's legislative powers under Articles 30 and 31 of the Euratom Treaty does not in principle require the application of the principle of

As the Euratom does not expressly refer to the principle of subsidiarity, it is no surprise that the 'Early Warning Procedure' does not apply. According to the 'Subsidiarity and Proportionality Protocol', draft legislative acts shall be sent to national parliaments which may send to the legislative institutions a reasoned opinion stating why it considers that the draft in question does not comply with the principle of subsidiarity. This protocol is not attached to Euratom, so the procedure does not apply to Euratom draft proposals.[192] Under the Euratom, national parliaments have no such possibility to review legislative acts. It is interesting to note that the 'Protocol on the Role of National Parliaments' applies to the Euratom. This Protocol ensures that national parliaments shall be informed on legislative drafts, but the national parliaments have no formal role in the legislative procedure to evaluate proposals from a subsidiarity perspective.

2.4 The 'Constitutionalisation' of Euratom?

Let us now elaborate on the question posed in the introduction to this chapter of whether the Euratom has followed the EU's constitutional path. Given the discussion so far, could we now provide an answer to this question? The constitutionalisation of the EU Treaties is a dominant theme in the EU law literature, but situating the Euratom within this development represents a lacuna. We must begin by refining what we mean by 'constitutionalisation'. We posit here that the evolving ethos can be seen as one aspect of 'constitutionalisation'.

The debate on the constitutionalisation of the EU often starts from the assumption that the original three Community Treaties were set up as international organisations, but that they have evolved beyond this status into

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subsidiarity'); and Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community Framework for the Responsible and Safe Management of Spent Fuel and Radioactive Waste, OJ 2011 No. L199, p. 48.

[192] Some commentators argue that the early warning procedure is 'political' rather than legal. See, for example, Marco Goldoni, 'The Early Warning System and the Monti II Regulation: A Political Interpretation' (2014) 10 *European Constitutional Law Review* 90–108. It is therefore curious that the subsidiarity principle applies to the Euratom as a 'political' principle, but not the 'political' early warning procedure. Much more could be said here, but it suffices to note that the term 'political' has different functions when it comes to the application of the subsidiarity principle to the Euratom and the effect of the early warning procedure.

'something else',[193] into an entity '*sui generis*'.[194] And indeed, the three original Communities met the three general criteria for being international organisations, which Klabbers summarises as: 1) created by States; 2) set up on the basis of treaties; and 3) possess at least one organ. According to Klabbers, a fourth criterion is sometimes presented: a 'will' that is distinct from the organisation's Member States (although it may be hard to find any other examples than the EU that are fulfilling this criterion).[195] In the EU, this means that the Council takes decisions by majority instead of unanimity (whereas international organisations usually take decisions by unanimity). The Commission's independency and near monopoly to initiate legislation adds to this picture, and so does the directly elected European Parliament which shares co-decision rights with the Council in a large number of policy areas. The independence of the CJEU and its binding decisions is a further element. It is the *strengthening* of this fourth criterion (for example, the expansion of areas where the Council takes decision by qualified majority) that seems to be what makes the EU into an entity '*sui generis*'; this is how the EU 'evolves' from its original status as a mere international organisation. In addition, and perhaps more importantly, the EU doctrines of direct effect and supremacy over national law are also elements of this *sui generis* character.

Some scholars points to the fact that the EU Treaties now contain certain 'constitutional' elements, which, they argue, are generally also found in constitutions: the Treaties prescribe the composition of the EU institutions, how power shall be exercised and limited, and they protect human rights and fundamental freedoms. The Union Citizenship is another such element.[196] Along

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[193] Sionaidh Douglas-Scott, *Constitutional Law of the European Union* (New York: Longman, 2002), p. 260.

[194] Bruno de Witte offers a critique of the claim that the EU is to be characterised as an entity *sui generis*. He argues that other international organisations show similar features of supranationality as the EU, and that the EU is therefore better characterised as an international legal experiment. See Bruno de Witte, 'The European Union as an International Legal Experiment', in Gráinne de Búrca and J.H.H. Weiler (eds.), *The Worlds of European Constitutionalism* (Cambridge: Cambridge University Press, 2011), pp. 19–56.

[195] Jan Klabbers, 'Sui Generis? The EU as an International Organization', in Dennis Patterson and Anna Södersten (eds.), *EU Law and International Law* (Wiley-Blackwell, in preparation); and Klabbers, *An Introduction to International Institutional Law* (Cambridge: Cambridge University Press, 2009).

[196] In Armin von Bogdandy's view, the 'semantics' also supports the 'constitutionalisation' claim: the Treaties, in particular Article 2 TEU, has introduced some key concepts of constitutional discourse such as freedom, democracy, rule of law and protection of fundamental rights. See von Bogdandy, 'The Legal Case for Unity'.

the line of this reasoning, the EU Treaties are therefore to be understood as 'constitutional law'.[197]

The CJEU has played an important role in the 'constitutionalisation' of the Treaties. It is frequently argued that the CJEU is paving the way for the constitutional evolution of the EU legal order. The Court has not only introduced 'constitutional principles',[198] such as direct effect and supremacy,[199] but it has also famously interpreted the EU Treaties as being a 'constitutional charter'.[200] Scholars point to the fact that the Member States have shown their willingness to fill 'legitimacy' gaps by amending the treaties.[201]

How does the Euratom fit into this notion of European Constitutionalism? While the EU Treaties have undergone successive amendments, which have reinforced their supranational character, this is not the case for the Euratom Treaty. Despite the fact that the Member States have deliberately refrained from amending the Euratom Treaty, could it really be the case that Euratom has followed a constitutional path? There is something intuitively repellent about depicting the Euratom as a 'constitutional charter'. This is not a perception based on content, i.e., on an negative view of the Treaty's central objective (to create 'the conditions necessary for the establishment and growth of nuclear industries'), one could be for or against the use of nuclear power, but still be of the view that

[197] Ibid.
[198] See also *Kadi*, where the Court refers to 'constitutional principles' and 'constitutional guarantees', paras 285 and 290. Joined Cases C-402/05 P and C-415/05P, *Yassin Abdullah Kadi and Al Barakaat International Foundation* v. *Council and Commission* [2008] ECR I-6351.
[199] J.H.H. Weiler describes constitutionalisation as 'the emergence of European law as a constitutionally "higher law" with immediate effect within the "legal space" of the Community'. J.H.H. Weiler, *The Constitution of Europe: do the new clothes have an emperor? and other essays on European integration* (Cambridge: Cambridge University Press, 1999), p. 4.
[200] Case 294/83, *Parti écologiste "Les Verts"* v. *European Parliament* [1986] ECR 1339, para 23; Opinion 1/91 [1991] ECR I-6079, para 21; von Bogdandy, 'The Legal Case for Unity,' 96; Paul Craig 'Constitutions, Constitutionalism, and the European Union' (2001) *European Law Journal* 125–50.
[201] See, for example, Derrick Wyatt, 'Is the European Union an Organisation of Limited Powers?' in Anthony Arnull, Catherine Barnard, Michael Dougan and Eleanor Spaventa (eds.), *A Constitutional Order of States? Essays in EU Law in Honour of Alan Dashwood* (Oxford: Hart Publishing, 2011), p. 3.

it is inappropriate to describe the Euratom as 'constitutional'.[202] We shall explore this further.

There are two main possibilities for how Euratom could have been 'constitutionalised'. First, it may have developed into a 'constitutional order' by its own means, that is, because of its own 'essential characteristics'. This could be described as a *parallel* development. Second, it could be a matter of a development through *links*. That is, the Euratom has constitutionalised because of its links to the EU (and perhaps because they form part of the same legal order). We have already examined some of those links, the most important being the shared institutional framework. We shall point out that in *Van Gend en Loos*, the Court held that 'the *Community* [EEC] constitutes a new legal order of international law', and in *Costa ENEL*, the Court held that 'by contrast with ordinary international treaties, the *EEC Treaty* has created its own legal system'. So, when proclaiming the constitutional principles of direct effect and supremacy, the Court never clarified that they were also applicable to the Euratom or the ECSC.

We shall first say a few words about the 'parallel development thesis' and explain why it is untenable. One aspect of the parallel thesis is the existence of identical provisions. The Euratom and EU have many provisions with identical wording (before Lisbon, the Euratom contained many institutional provisions that were identical to those in the EC Treaty). Recall here the Court's reasoning in Opinion 1/91.[203] The Opinion concerned the European Economic Area (EEA) Agreement, which was to give the EFTA countries access to the EC free trade area. Some of the EEA rules were identical to EEC Treaty provisions. The Court had to decide whether the homogeneity of the EEA rules was secured by this fact alone.

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[202] Robert Howse and Kalypso Nicolaides, 'Legitimacy and Global Governance: Why Constitutionalizing the WTO Is a Step too Far', in Roger Porter, Pierre Sauve, Arvind Subramanian and Americo Zampetti (eds.), *Efficiency, Equity, Legitimacy: The Multilateral Trading System at the Millennium* (Washington DC: Brookings Institution Press, 2001), pp. 227–63.
[203] Trevor C. Hartley, 'The European Court and the EEA' (1992) 41 *International and Comparative Law Quarterly* 841–8; Barbara Brandtner, 'The 'Drama' of the EEA Comments on Opinions 1/91 and 1/92' (1992) 3 *European Journal of International Law* 300–28; Walter van Gerven, 'The Genesis of EEA Law and the Principles of Primacy and Direct Effect' (1992) 16 *Fordham International Law Journal* 956–89.

The Court pointed out that the fact that the provisions were identically worded did not mean that they must necessarily be interpreted identically. It recalled that an international treaty must not only be interpreted on the basis of its wording, but also in the light of its objectives. The Court then explained that the Community provisions formed part of the 'Community legal order' and that the Community objectives go beyond that of the EEA agreement. The Court pointed out that the Single European Act stated that the objective of the Community Treaties (plural) was 'to contribute together to making concrete progress towards European unity'.[204] It then noted that the EEA was to be established on the basis of an international treaty which merely created rights and obligations between the Contracting Parties and that it provided for no transfer of sovereign rights to the institutions it set up. The Court recalled that the EEC Treaty 'albeit concluded in the form of an international agreement, none the less constitutes the constitutional charter of a Community based on the rule of law in ever wider fields'.[205]

The Court also repeated its statement from *Van Gend en Loos* on the nature of the Community legal order: 'The Community treaties established a new legal order for the benefit of which the States have limited their sovereign rights and the subjects of which comprise not only Member States but also their nationals'. It further pointed out that 'the essential characteristics of the Community legal order which has thus been established are in particular its primacy over the law of the Member States and the direct effect of a whole series of provisions'. The Court concluded that the homogeneity of the EEA rules was not secured by the fact that EEC provisions and the corresponding provisions of the EEA Agreement were identical in their content or wording.[206]

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[204] Article 1 of the SEA reads: 'The European Communities and European Political Co-operation shall have as their objective to contribute together to making concrete progress towards European unity'.
[205] Cf. Case 26/62, *NV Algemene Transport- en Expeditie Onderneming van Gend & Loos* v. *Netherlands Inland Revenue Administration* [1963] ECR 1 ('albeit within limited fields').
[206] The Court then noted that the EEA agreement must be interpreted in conformity with the Court's case law on the corresponding provisions of Community law. It found that this would not enable legal homogeneity because it is only concerned with rules given prior the agreement and it did not take evolving case law into account (Recital 22). The Court also pointed out that the agreement did not specify whether it referred to the case law on direct effect and primacy. It appeared from a protocol to the agreement that the Contracting Parties 'undertake merely to

What follows is that in light of Opinion 1/91, we cannot describe the Euratom Treaty as a 'constitutional charter' simply because some of its rules are identical to the EU's (EEC).[207] One key question is instead whether the doctrines of direct effect and supremacy apply to Euratom law.[208] The core of the Court's reasoning in *Van Gend en Loos* is that the Member States have transferred sovereign rights to the EU institutions.[209] The CJEU famously concluded that the EEC Treaty was a 'new legal order'. The Court put forward four main arguments: 1) the EEC Treaty's preamble refers not only to governments but to people; 2) the establishment of institutions endowed with sovereign rights, the exercise which affects also citizens; 3) the cooperation of citizens in the functioning of the Community through the intermediary of the European Parliament and the Economic and Social Committee; and 4) the preliminary ruling procedure through which the Member States have acknowledged that their nationals can invoke the authority of Community law before the national courts.

Would the Euratom be a 'new legal order' on the basis of these arguments? Nothing in the Euratom's preamble indicates that the Treaty addresses people and not only governments. The closest one gets is the formulation that the Euratom will 'contribute, through its many other applications, to the prosperity of their peoples'.[210] The Euratom fulfils the other three criteria. It has established institutions endowed with rights that directly affect individuals, the citizens are cooperating through the European Parliament and Economic and Social

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introduce into their respective legal orders a statutory provision to the effect that the rules of the agreement are to prevail over contrary legislative provisions with the result that compliance with the case-law of the Court of Justice does not extend to essential elements of that case-law which are irreconcilable with the characteristics of the agreement'.

[207] We should again note that most of the Euratom's separate institutional provisions have been repealed.

[208] Derrick Wyatt, 'New Legal Order, or Old?' (1982) 7 *European Law Review* 147–66. For a description of the nature and the evolution of these principles, see Bruno de Witte, 'Direct Effect, Primacy, and the Nature of the Legal Order', in Paul Craig and Gráinne de Búrca (eds.) *The Evolution of EU Law* (Oxford: Oxford University Press, 2011), pp. 346–8.

[209] This section performs a similar exercise as Walter van Gerven's article 'The Genesis of EEA Law and the Principles of Primacy and Direct Effect', which examines, inter alia, whether the doctrines of direct effect and supremacy could apply to the EEA Agreement. He found that that the preamble of that agreement addressed people and not only governments. The preamble stipulated that the States were 'convinced of the important role that individuals will play in the European Economic Area through the exercise of the rights conferred on them by this Agreement and through the judicial defence of these rights'.

[210] However, as we shall see in Chapters 3 to 6 of this dissertation, there are many Euratom provisions that are directed at individuals rather than States, but these are formulated as obligations rather than as rights.

Committee, and the Treaty also established a preliminary ruling procedure.[211] But is this sufficient for coming to the conclusion that under the Euratom Treaty there is also a doctrine of direct effect?

And what about the principle of supremacy, which the CJEU introduced in *Costa Enel*?[212] The CJEU refers to the creation of a Community legal system and the fact that the Member States have limited their sovereignty and transferred their powers to the Community. It also refers to the fact that the Community is of unlimited duration, that the Community has its own institutions, its own (legal) personality, legal capacity, and capacity of international representation. The Court points out that is was not possible for the Member States to give precedence to unilateral and subsequent measures of their own. Although the reasoning is very much the same as in *Van Gend en Loos*, it seems easier to accept that supremacy applies to Euratom than direct effect. The reason is that supremacy does not require a 'humanist dimension'; we do not need EU law for supremacy. We shall point out here that the relationship between supremacy and direct effect is an intertwined one.[213] In *Van Gend end Loos*, the AG rejected direct effect precisely because of the absence of supremacy in some Member States. According to this line of reasoning, supremacy is necessary for direct effect to operate; it is a natural corollary of direct effect. Conversely, supremacy seems rather meaningless if Member State courts were not requested to enforce directly effective rights[214]; supremacy would be no different from *pacta sunt servanda*.

We can conclude that the Euratom at least shares some of the same 'essential characteristics' with the EU – characteristics that led to (or, as some would argue, are signs of) constitutionalisation. But it seems unlikely that the Court would have come to these conclusions only on the basis of the Euratom; there would

[211] On the significance of the preliminary ruling procedure for the national courts, see J.H.H. Weiler, 'Van Gend en Loos: The Individual as Subject and Object and the Dilemma of European Legitimacy' (2014) *International Journal of Constitutional Law* 94–103; Peter van Elsuwege, 'EU External Action after the Collapse of the Pillar Structure: In search of a New Balance between Delimitation and Consistency' (2010) 47 *Common Market Law Review* 987–1019.
[212] Case 6/64, *Costa* v. *Enel* [1964] ECR 585, paras 593–94.
[213] Weiler, 'Van Gend en Loos: The Individual as Subject and Object and the Dilemma of European Legitimacy', 98.
[214] Cf. Case 106/77, *Simmenthal* [1978] ECR 629.

have been no constitutionalisation without the EEC. European constitutionalism has evolved because the Court put the individual in the centre,[215] but this will never be done, perhaps it is not even possible, if we are left only with the Euratom: the Euratom lacks a 'humanist ethos'. As explained above, it is still very much a functional treaty.

Thus, we cannot conclude that the Euratom has 'constitutionalised' by its own means. There is no parallel development. If we can, at all, depict the Euratom as 'constitutional', the 'constitutionalisation' can only be said to have taken place due to links to the EU, perhaps as 'constitutional spill-over'. Note also that in Opinion 1/91, the Court pointed out that all three Community Treaties formed the Community legal order because they were to make progress towards European unity.

2.5 The Connection-Clauses

In public international law, principles like hierarchy and *lex specialis* can be used as methods to decide a relationship between norms (or between treaties).[216] They can be applied in a system of sub-orders, and even between separate legal orders, but their application then largely depends on the mutual acceptance by the different legal orders. Some treaties, including the Euratom Treaty, include specific provisions that regulate the relationship to other treaties, which might embody these principles. It should be pointed out that the mere existence of such a clause does not reveal whether there are one or two legal regimes, but it tells

[215] See J.H.H. Weiler, Editorial, 'Individuals and Rights, The Sour Grapes' (2010) 21 *European Journal of International* Law 277–80.

[216] See Article 30, para 2 of the 1969 Vienna Convention on the Law of Treaties, Vienna, 23 May 1969, in force 27 January 1980, UN Doc. A/Conf.39/27 / 1155 UNTS 331 / 8 ILM 679 (1969) / 63 AJIL 875 (1969). See also Article 31 of the 1986 Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations, Vienna, 21 March 1986, not yet in force (Article 85), 25 ILM 543 (1986) / Doc. A/CONF.129/15. See also Seyed Ali Sadat-Akhavi, *Methods of Resolving Conflicts between Treaties* (Leiden: Martinus Nijhoff Publishers, 2003); Alexander Orakhelashvili, 'The Recent Practice on the Principles of Treaty Interpretation' in Alexander Orakhelashvili and Sarah Williams (eds.), *40 Years of the Vienna Convention on the Law of Treaties*, pp. 143–9; Duncan B. Hollis, *The Oxford Guide to Treaties* (Oxford: Oxford University Press, 2012), pp. 466–9; Joost Pauwelyn, *Conflict of Norms in Public International Law* (Cambridge: Cambridge University Press, 2003), pp. 385–418; and Anja Lindroos 'Addressing Norm Conflicts in a Fragmented Legal System: The Doctrine of Lex Specialis' (2005) 74 *Nordic Journal of International Law* 27–66.

us that there is a certain connection between the treaties. We therefore refer to it as a 'connection-clause'.

Prior to the Lisbon Treaty, the 'connection-clause' was located in Article 305 in the EC Treaty.[217] It contained two paragraphs. The first one concerned the relationship between the EC Treaty and the now-expired Coal and Steel Treaty (ECSC), and the second one involved the relationship between the EC Treaty and the Euratom Treaty. It read:

> The provisions of this Treaty shall not affect the provisions of the Treaty establishing the European Coal and Steel Community, in particular as regards the rights and obligations of Member States, the powers of the institutions of that Community and the rules laid down by that Treaty for the functioning of the common market in coal and steel.
>
> The provisions of this Treaty shall not derogate from those of the Treaty establishing the European Atomic Energy Community.

The EC-ECSC relationship[218] was thus governed by the wording 'shall not affect'.[219] The reason was that the ECSC Treaty had already been in force for some years before the adoption of the EEC Treaty. There had to be a clarification that the adoption of the EEC Treaty would not change the status quo: A *lex posterior* situation had to be avoided.[220] For the EEC-Euratom relationship, the wording 'shall not derogate' was used instead.[221] The EEC Treaty and the Euratom Treaty were adopted and came into force at the same time, so there was no need to regulate for *lex posterior*. It should be pointed out that there was no corresponding 'connection-clause' for the Euratom-ECSC relationship; apparently, the treaty drafters did not see any need to regulate the relationship between the two sectoral treaties.

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[217] As incorporated in the EC Treaty, it gave precedence to the other treaties: the ECSC Treaty and the Euratom Treaty. The conflict rule in Article 47 was similar in the way that it was pointing to the treaties that were to be protected. The new Article 106a(3) Euratom is different in the sense that the provision aims to protect the treaty in which it is incorporated.
[218] Note also the further specification to the EC-ECSC relationship: 'In particular as regards the rights and obligations of Member States, the powers of the institutions of that Community and the rules laid down by that Treaty for the functioning of the common market in coal and steel.'
[219] Similar as ex Article 47 TEU, examined below.
[220] See Everling, 'From European Communities to European Union', p. 140.
[221] A comparison could be made between different language versions: The French version stipulates: 'ne modifient' and 'ne dérogent'; the German versions: 'ändert nicht' and 'beeinträchtigt nicht'; the Italian version: 'non modificano' and 'non derogano'; and the Swedish version: 'inte medföra någon ändring' and 'skall inte inverka'.

By the Lisbon revision, the 'shall not derogate' clause in the EC Treaty was moved to the Euratom Treaty.[222] Article 106a Euratom reads:

> The provisions of the Treaty on European Union and of the Treaty on the Functioning of the European Union shall not derogate from the provisions of this Treaty.

The move from the EC to the Euratom was a purely technical matter; the intention was merely to streamline, not to change, the actual relationship between the treaties. However, it should be noted that Article 106a Euratom replaced not only Article 305 EC but also Article 47 EU, which was the central provision governing the relationship between the EU Treaty (CFSP) and the three Community Treaties.[223] In other words, Article 106a Euratom governs the relationship to both the TFEU[224] and TEU. As a consequence, the Euratom Treaty appears more separate than before Lisbon; there is now no reference in the EU Treaties to the Euratom Treaty, only in the Euratom Treaty to the EU Treaties.

Another consequence is that the wording governing the Euratom-CFSP relationship has changed. Former Article 47 EU was constructed with the wording 'shall not affect'. When the EU Treaty was adopted in 1992, a *lex posterior* situation had to be avoided in relation to the three Community Treaties, which were prior in time. But as Article 106a Euratom has replaced Article 47 EU, the relationship between the Euratom and the CFSP is now governed by 'shall not derogate' instead. It should be pointed out that the Lisbon Treaty also inserted Article 40 TEU, which replaced Article 47 EU as to the relationship between the CFSP and other policy areas in the EU Treaties.[225] This means that

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[222] The ECSC Treaty expired in 2002 and is no longer mentioned.

[223] Article 47 EU read: 'Subject to the provisions amending the Treaty establishing the European Economic Community with a view to establishing the European Community, the Treaty establishing the European Coal and Steel Community and the Treaty establishing the European Atomic Energy Community, and to these final provisions, nothing in this Treaty shall affect the Treaties establishing the European Communities or the subsequent Treaties and Acts modifying or supplementing them'. The Single European Act inserted this provision. Article 32 of SEA read: 'Nothing in this Act shall affect the Treaties establishing the European Communities or any subsequent Treaties and Acts modifying or supplementing them.' The Maastricht Treaty introduced a modified version.

[224] The 'EC Treaty' has been replaced by the TFEU. See Piris, The Lisbon Treaty: A Legal and Political Analysis, p. 64.

[225] Unlike Article 47 TEU, it does not govern a treaty relationship, but the relationship between the CFSP and other policy areas in the EU Treaties.

the relationship between the CFSP and 'non-CFSP' is still governed by 'shall not affect'.

2.5.1 The 'Shall not Affect' in Case Law

We shall now briefly explore the Court's reading of former Article 47 EU, which, as mentioned, was the central provision governing the relationship between the EU Treaty and the Community Treaties. It gives us some guidance about how a 'connection clause' operates between treaties.

There were relatively few cases on Article 47 EU and none of them concerned the EU-Euratom relationship, only the EU-EC relationship. Three of the cases regarded the relationship between the first and third pillar. The Council had adopted instruments under the third pillar, but the Commission contended that it ought instead to have been adopted under first pillar competences. In Case 170/96, *Airport Transit Visas*,[226] the Court stated that its task under Article 47 EU was 'to ensure that acts which […] fall within the scope of […] the Treaty on European Union do not *encroach* upon the powers conferred by the EC Treaty on the Community'.[227] In Case C-176/03, *Environmental Penalties*[228] and Case C-440/05, *Ship-source Pollution*, the Court clarified its position on what 'encroachment' means.[229] The Court stated that if a measure adopted under third pillar competences could also have been adopted under a legal base in the EC Treaty, this was to be understood as an encroachment (on the latter treaty). The Court also held that the aim and content of a legal act gave an indication of the correct legal basis.

A further indication of the meaning of 'shall not affect' was given in the *ECOWAS* case,[230] which was the first and only case on the relationship between the first and the second pillar.[231] The Council had adopted a CFSP Decision, which was

[226] Case 170/96, *Commission* v. *Council* ('Airport Transit Visas') [1998] ECR I-2763.
[227] Ibid., para 16.
[228] Case C-176/03, *Commission* v. *Council* ('Environmental Penalties') [2005] ECR I-7879.
[229] Case C-440/05, *Commission* v. *Council* ('Ship-source Pollution') [2007] ECR I-9097.
[230] Case C-91/05, *Commission* v. *Council* ('ECOWAS') [2008] ECR I-3651.
[231] Christophe Hillion and Ramses A. Wessel, 'Competence distribution in EU external relations after Ecowas: Clarification or continued fuzziness?' (2009) 46 *Common Market Law Review* 551–86.

simultaneously pursuing both CFSP objectives (second pillar) and development cooperation objectives (first pillar). The Court stated that if it had been a question of several legal bases in the EC Treaty, a dual legal base would have been applied. But this was not possible because of the 'preventive character' of Article 47 EU. The Court seemed to confirm that the EC and the EU were to be seen as two distinct legal orders, because it made explicit that the legislator had to make a choice between the treaties.[232] The Court also confirmed its earlier case law where it had clarified that in that choice, an EC legal base had to be applied; the EC Treaty was superior. The contested decision was annulled because in the light of its aim and content, it should have been adopted under a Community competence.

As mentioned, the former EC-ECSC relationship was also governed by the wording 'shall not affect' (ex Article 305 EC). What did 'shall not affect' mean there? In Case 239/84, *Gerlach & Co. BV*, the Court decided that an EEC Regulation on anti-dumping could not apply to products falling under the ECSC Treaty, because such products would continue to be governed by separate rules. The ECJ held that it followed from the 'shall not affect' clause that 'the rules of the ECSC Treaty and all the provisions adopted to implement that treaty remain in force as regards the functioning of the common market in coal and steel, despite the adoption of the EEC Treaty'.[233] Thus, the function of 'shall not affect' was simply to avoid *lex posterior*.

The Court further clarified its reading of the 'shall not affect' clause in Case 328/85 *Deutsche Babcock Handel GmbH.*[234] The Finanzgericht in Hamburg had

[232] AG Mengozzi argued that the aim of Article 47 EU was to keep the primacy of EC Treaty action 'watertight'. See Case C-91/05, *Commission* v. *Council* ('ECOWAS') [2008] ECR I-3651, Opinion of AG Mengozzi, para 116.
[233] Case 239/84, *Gerlach & Co. BV, Internationale Expeditie,* v. *Minister van Economische Zaken*, [1985] ECR 3507, para 9: 'The rules of the ECSC Treaty and all the provisions adopted to implement that Treaty remain in force as regards the functioning of the common market in coal and steel, despite the adoption of the EEC Treaty'. See however, Case T-6/99, *ESF Elbe-Stahlwerke Feralpi* v. *Commission* [2001] ECR II-1523, para 102, where the Court of First Instance referred to this case. It stated that Article 232 EEC must mean that the ECSC Treaty constitutes a *lex specialis* in derogation from the *lex generalis* represented by the EC Treaty. This is more clearly expressed in the Opinion of Advocate General VerLoren van Themaat, paras 25 to 27.
[234] Case 328/85, *Deutsche Babcock Handel GmbH* v. *Hauptzollamt Lübeck-Ost* [1987] ECR 511.

referred to the ECJ a question of whether a Council Regulation[235] adopted on the basis of the EEC Treaty was directly applicable to goods to which the ECSC Treaty applies. Advocate General Sir Gordon Slynn observed that the provisions of the EEC Treaty were not to affect the provisions of the ECSC (referring to the 'shall not affect' clause).[236] He then considered:

> Does this mean that the EEC Treaty is not concerned with coal and steel and that legislation made under it may not make rules in respect of coal and steel or does it have a more limited meaning? In my view the provision has a more limited meaning. It would have been perfectly simply to provide that nothing in the EEC Treaty related to coal and steel products or to the coal and steel industry if that had been intended. That was not done. Instead the limitation imposed is that the provision of the EEC Treaty shall not 'affect the provision' of the earlier Treaty, in particular as regards the matters specified. I read that as meaning that the EEC Treaty may apply to coal and steel except to the extent that matters are dealt with in the ECSC Treaty or in rules made under it; in so far as the latter has occupied the ground the EEC Treaty provisions are not to have effect.

The Court affirmed the AG's suggested reading. The Court held that the 'shall not affect' clause should be interpreted as meaning that 'in so far as matters are not the subject of provisions in the ECSC Treaty or rules adopted on the basis thereof, the EEC Treaty and the provision adopted for its implementation can apply to products covered by the ECSC Treaty'.[237] We shall also mention Case C-408/04 P *Commission* v. *Salzgitter*,[238] where the Court held that it followed from the 'shall not affect' clause that the EC Treaty and the ECSC Treaty are 'independent treaties', and that 'secondary legislation enacted on the basis of [the EC Treaty] cannot produce effects in areas that fall within the scope of the ECSC Treaty'. The Court clarified that '[t]he provisions of the EC Treaty only apply in the alternative, in situations in which there is no specific rule under the ECSC Treaty'.[239]

As this brief account shows, the functions of both Article 47 EU and Article 305.1 EC were to set aside the principle *lex posterior*. But the Court read the two 'shall

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[235] Council Regulation (EEC) No 1430/79 of 2 July 1979 on the repayment or remission of import or export duties, OJ 1979 No. L175, 12 July 1979, p. 1.
[236] Case 328/85, *Deutsche Babcock Handel GmbH* v. *Hauptzollamt Lübeck-Ost* [1987] ECR 511, Opinion of Advocate General Sir Gordon Slynn.
[237] Case 328/85, *Deutsche Babcock Handel GmbH* v. *Hauptzollamt Lübeck-Ost* [1987] ECR 511, para 10.
[238] Case C-408/04P, *Commission* v. *Salzgitter* [2008] ECR I-2767; Joined Cases C-74/00 P and C-75/00P, *Falck and Acciaierie di Bolzano* v. *Commission* [2002] ECR I-7869, para 100.
[239] Ibid., para 88.

not affect' clauses (in former Articles 47 EU and 305 EC) in different ways. In the EU-EC relationship, it meant that the EU Treaty competences were not to 'encroach' on EC Treaty competences. The Court interpreted Article 47 EU as a priority clause, giving precedence to the EC Treaty. Its function was to protect the EC legal order (and, indeed, the Euratom legal order).[240] A choice between the treaties had to be made, and when making that choice a legal basis in the EC Treaty should be given priority. The clause established a hierarchy between the EU Treaty and the EC Treaty. The EC legal order had to be protected, because it was earlier.[241] There was also the intention that the EU Treaty should not undermine the supranational character of the EC Treaty, because, after all, the EC Treaty was the 'foundation' of the Union. In the EC-ECSC relationship, 'shall not affect' meant that as long as the ECSC Treaty was silent, the EC Treaty could apply in the alternative.

2.5.2 'Shall not Derogate' as Lex Specialis?

What does 'shall not derogate' mean? Euratom is sometimes referred to as being *lex specialis* in relation to provisions in the EU Treaties. Is the 'shall not derogate' clause an expression of this principle? The principle *lex specialis derogat legi generalis* has its roots in Roman law, and is mentioned by early scholars such as Hugo Grotius, Samuel Pufendorf and Emmerich de Vattel.[242] It simply means that 'a special rule should be given priority over the general rule'.[243] The rationale behind it is that it is the most *efficient* way of solving a norm conflict.[244] But the

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[240] Alan Dashwood, 'Article 47 TEU and the relationship between first and second pillar competences', in Alan Dashwood and Marc Maresceau (eds.), *Law and Practice of EU External Relations* (Cambridge: Cambridge University Press, 2008), pp. 70–103, at 70–2.

[241] A comparison could be made to the 'TNT Judgment' where the Court seemed to hold that the 'non-affect'-clause in Article 71 of Regulation No. 44/2001 (Brussels Regulation) was regarded as both *lex specialis* and protecting from *lex posterior*. See Case C-533/08, *TNT Express Nederland BV* v. *AXA Versicherung AG* [2010] ECR I-4107.

[242] See Report of the Study Group of the International Law Commission, Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law, A/CN.4/L.682/Add.1 2 May 2006, p. 116.

[243] Lindroos, 'Addressing Norm Conflicts in a Fragmented Legal System', 44, referring to Sir G. Fitzmaurice, 'The Law and Procedure of the International Court of Justice 1951–4: Treaty Interpretation and Other Treaty Points', XXXIII *British Yearbook of International Law* (1957) p. 236.

[244] See Lindroos, 'Addressing Norm Conflicts in a Fragmented Legal System'. Lindroos explains that, according to Grotius, applying special provisions were more efficient as they are closer to the subject in hand'. As Grotius writes: 'Among agreements which are equal in respect to the

principle does not have a particular content; it is just a 'technique which directs the attention of decision-makers to a more appropriate regulation'.[245] If there are no criteria to decide which norms that should be regarded as 'special', political considerations will necessarily be involved.

One difficulty is that the *lex specialis* principle is highly contextually dependent. It can only with difficulty be applied *in abstracto*. It has more practical relevance when applied to concrete cases. An example from international law may help to illustrate this. In *Legality of Threat or Use of Nuclear Weapons*,[246] the ICJ stated that provisions in humanitarian law could not set aside human rights law, even though the humanitarian law system was regarded as being more specific. In that specific context, human rights law had to prevail. A further difficulty, which has been recognised by the International Law Commission, is that 'the relationship between the *lex specialis* maxim and other norms of interpretation or conflict solution cannot be determined in a general way'[247]; there is no defined relationship between different conflict-solving principles, e.g., *lex posterior* and *lex specialis*. In other words, it is not always clear when the *lex specialis* rule shall apply and not another conflict-solving principle.

Despite these weaknesses, the *lex specialis* rule is widely recognised as a useful solution to treaty conflicts.[248] It applies in domestic law as well as international law. In international law, the *intention* of the parties of a treaty or an agreement is an element that needs to be taken into account; it has to be established that they intend that certain provisions, or a treaty, shall constitute *lex specialis*. Some commentators suggest that it is not appropriate to use it in an international legal system, which generally lacks institutional structures.[249] It is more easily applied in domestic law, which provides institutional structures that can facilitate the

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qualities mentioned, that should be given preference which is most specific and approaches most nearly to the subject in hand; for special provisions are ordinarily more effective than those that are general', *The Law of War and Peace: De jure belli ac pacis, libri tres*, p. 428.
[245] Lindroos, 'Addressing Norm Conflicts in a Fragmented Legal System', 36.
[246] *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, ICJ Reports 1996, p. 226.
[247] See 'Conclusions of the work of the Study Group on the Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law' 2006, *Yearbook of the International Law Commission*, 2006, vol. II, Part Two.
[248] See Martti Koskenniemi, The ILC Report, Study on the Function and Scope of the Lex Specialis rule and the Question of 'Self-Contained Regimes', 4 ILC, 7 May 2004, ILC (LVI)SG/FIL/CRD.1(2004), para 21.
[249] Lindroos, 'Addressing Norm Conflicts in a Fragmented Legal System', 30.

application of the principle. In addition, domestic systems generally take more care of norm-relationships than international law, because they normally deal with them specifically.

Is the 'shall not derogate' clause in Article 106a Euratom an expression of *lex specialis*? If so, this would mean that the EU Treaties are regarded as *lex generalis.* There are (at least) two possible interpretations of the 'shall not derogate' clause: one strict and one more flexible. A strict interpretation means that there is a 'fixed boundary' between the treaties. The Euratom Treaty is *lex specialis* as a whole and *in abstracto*. This means that if the Euratom Treaty (*lex specialis*) is silent, then the EU Treaties may *not* apply as *lex generalis*. The competence remains with the Member States. A more flexible interpretation means that there are no strict boundaries between the Treaties. Where the Euratom Treaty is silent, the EU Treaties (EC Treaty) may apply in the alternative.

An objection to the *lex specialis* approach taken by the Court, based on content, should here be put in its proper light. Cusack argues that because of the fundamental difference of approach and philosophy between the treaties (the Euratom Treaty being essentially *dirigiste* and promotional) and the EC Treaty market-oriented (at least initially), it would be wrong to see this relationship as a dichotomy of *lex specialis* and *lex generalis*. In his view, the Treaties should instead be seen as autonomous.[250]

The following chapters map out the Euratom's substantive law. The case law where the Euratom's 'shall not derogate' clause comes into play will be discussed; and in the dissertation's general Conclusion, the difference between 'shall not derogate' and 'shall not affect' will be explained.

2.6 Conclusions

The purpose of this chapter was to shed light on the formal relationship between the Euratom and the EU and, in particular, provide an answer to the question of whether they belong to the same legal regime or whether they are better

[250] Thomas F Cusack, 'A Tale of Two Treaties: An assessment of the Euratom Treaty in Relation to the EC Treaty' (2003) 40 *Common Market Law Review* 117–142, at 127.

conceptualised as separate legal regimes. This question is important, because it helps us to understand how to make the choice between the Euratom and the EU.

The absence of rival claims of supremacy, as between the Euratom and EU (in the sense of different actors making such claims), points in the direction of one single legal regime. The obvious reason for this absence is the shared institutional framework (including the sharing of institutional provisions). This makes this account different from other accounts on the character of and relations between legal regimes (e.g., discussions on the relationship between the EU and the Member States). The shared institutional framework is undeniably the strongest link between the Euratom and the EU. The Euratom and the EU also show similar supranational features, which make this relationship different from the relationship between the former EC and EU (CFSP). But the absence of rival supremacy claims does not make this relationship unproblematic; as explained, the purpose of asking the legal regime question is that we need to know how to deal with the relationship between the Euratom and the EU.

There are also aspects that point in the direction of *separate* legal regimes. Even after Lisbon, there are still separate treaties with separate objectives, and the Euratom still has a separate legal personality. There is no reference from the EU Treaties to the Euratom Treaty, only from the Euratom Treaty to the EU Treaties. As the discussion on their different 'ethos' illustrates, the Euratom and the EU also display different features. Unlike the EU, the Euratom is still simply a 'functional' organisation. The question is how to deal with these differences. It was suggested that through links, the evolution of the EU's 'ethos' as well as the 'constitutional' evolution also reaches the Euratom.

As this chapter makes clear, there is no definitive answer to the legal regime question on the basis of the different arguments presented. The reason is that a sufficiently clear conception of a 'legal regime' does not exist.[251] Moreover, even if we could answer the legal regime question, we do not know what implications would follow from this. Therefore, the theories on legal regimes were here

[251] See also Herrman, who argues that much depends upon the perspective that one adopts with regard to the meaning of 'legal order'. Herrmann, 'Much Ado About Pluto?', 2.

mainly used to introduce some issues regarding the character of the relationship between the Euratom and the EU. As we have seen, there are a variety of answers – more or less plausible. What is clear is that we have to take the Euratom's distinct character into account. Moreover, if the Euratom and the EU are to be understood as parts of the same legal regime, we expect the choices between them to be coherent.[252] The following chapters attempt to further explore the question of choice between the Euratom and EU, as well as the Euratom's added value.

[252] For an account of coherency in legal reasoning, see Julie Dickson, 'Interpretation and Coherence in Legal Reasoning', The Stanford Encyclopedia of Philosophy (Summer 2014 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/sum2014/entries/legal-reas-interpret/>.

PART II: SUBSTANTIVE AREAS

In the chapters that follow, we shall explore substantive issues. The purpose is, as already stated, to provide a better understanding of the relationship between the Euratom and the EU. Before explaining how this will be done, a few words must first be said about how the Euratom Treaty is constructed.

The Treaty is divided into six titles: The tasks of the Community (Title I); Provisions for the encouragement of progress in the field of nuclear energy (Title II); Institutional and Financial Provisions (Title III); Specific Financial Provisions (Title IV); General Provisions (Title V); and Final Provisions, (Title VI).[1] The Euratom sets out its general tasks in Article 1 Euratom:

> It shall be the task of the Community to contribute to the raising of the standard of living in the Member States and to the development of relations with the other countries by creating the conditions necessary for the speedy establishment and growth of nuclear industries.

The Euratom's various activities are listed in Article 2, which reads:

> (a) promote research and ensure the dissemination of technical information;
> (b) establish uniform safety standards to protect the health of workers and of the general public and ensure that they are applied;
> (c) facilitate investment and ensure, particularly by encouraging ventures on the part of undertakings, the establishment of the basic installations necessary for the development of nuclear energy in the Community;
> (d) ensure that all users in the Community receive a regular and equitable supply of ores and nuclear fuels;
> (e) make certain, by appropriate supervision, that nuclear materials are not diverted to purposes other than those for which they are intended;
> (f) exercise the right of ownership conferred upon it with respect to special fissile materials;
> (g) ensure wide commercial outlets and access to the best technical facilities by the creation of a common market in specialised materials and equipment, by the free movement of capital for investment in the field of nuclear energy and by freedom of employment for specialists within the Community;

[1] The Euratom Treaty originally contained 225 articles, a number comparable to the original EEC Treaty, which contained 248 articles (cf. the TFEU with its 358 articles). The Lisbon Treaty repealed a considerable number of the Euratom Treaty articles and replaced them with references to the EU Treaties.

(h) establish with other countries and international organisations such relations as will foster progress in the peaceful uses of nuclear energy.

Each of the Euratom's activities is detailed in a Treaty chapter under Title II:

Chapter 1 – Promotion of Research;
Chapter 2- Dissemination of Information;
Chapter 3 – Health and Safety;
Chapter 4 – Investment;
Chapter 5 – Joint Undertakings;
Chapter 6 – Supplies;
Chapter 7 – Safeguards;
Chapter 8 – Property Ownership;
Chapter 9 – The Nuclear Common Market;
Chapter 10 – External Relations.

The dissertation examines all these treaty chapters. As explained in the Introduction to this dissertation, we shall deal with substantive issues over four chapters: nuclear industrial development (Chapter 3); radiation protection (Chapter 4); nuclear safety (Chapter 5); and non-proliferation (Chapter 6). As described in more detail in the Introduction, these chapters take a descriptive and an analytical approach. We shall identify 'gaps' and 'overlaps' between the treaties, as well as the type of actions and the form of the measures adopted. We shall also examine whether it matters which treaty is being applied and what difference it makes from an integration perspective and from a Member State perspective. We shall further examine how the Euratom acquis has evolved in relation to the EU acquis. Are they converging, diverging, or are they taking a parallel path? Throughout the four chapters, we shall also explore the external role played by Euratom.

Before starting the more detailed examination of the Euratom provisions and how they relate to the EU Treaties, we shall preface this discussion by giving some context of EU energy policy more generally. In the sections below, we shall briefly discuss the evolution of the EU's general energy policy and examine the energy provision, which was inserted by the Lisbon Treaty.

General (Common) Energy Policy

The need for a clearly defined energy policy, which would encompass all energy resources, was already discussed during the Rome Treaty negotiations. It was suggested that there would be a specific legal basis for energy policy.[2] But as we all know, the Member States were instead to cooperate on energy policy under the three different treaties: The Coal and Steel Treaty, which covered coal, the Euratom, which covers nuclear energy, and the EEC Treaty, which covered oil and gas (under its provisions on the free movement of goods).[3]

The idea to form a common energy policy that would encompass all energy resources was not, however, abandoned. At the end of the 1950s, the three Commissions and the Inter-executive Working Party on Energy[4] started issuing reports on the energy situation of the Community and on a 'coordinated policy in the field of energy', covering coal, oil, electricity, and gas.[5] A somewhat more decisive step towards a common energy policy was taken in 1969, when the Council endorsed the Commission's 'Initial Guidelines for a Community Energy Policy',[6] which provided that the Commission would 'progressively lay before the Council specific proposals for the implementation of a Community energy policy'. In the decades to come, three main 'pillars' of the Community Energy Policy became discernable (and they appeared in the following order): (1) security of energy supply; (2) market liberalisation; and (3) concerns over climate change. Each of these aspects plays an important role in the EU's energy policy of today.[7]

Let us start by saying a few words on the security of energy supply. Right from the start, and perhaps as a result of the Suez crisis in 1956, energy security was

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[2] As Polach explained: 'energy questions are delved into separately and partially by each Community as well as by each of the Six'. Polach, *EURATOM*, pp. 120–123.
[3] In the EEC Treaty, List G, Annex 1 listed crude and petroleum products.
[4] 'Groupe de Travail Interexecutif Pour les Questions de Politique Energetique'.
[5] European Commission, First report on a coordinated policy in the field of energy, doc. 3025/59 f.; and Report on the energy situation of the Community and the outlook for supply and consumption of energy in the Community in 1961, April 1961.
[6] First guidelines for a Community energy policy. Memorandum presented by the Commission to the Council, 18 December 1968, COM(1968)1040 final. Bulletin of the European Communities, Supplement to No. 12/1968. When the Council endorsed the guidelines in 1969, it approved the basic principles in the Commission Communication and it requested that the Commission make concrete proposals in this field.
[7] Vicki L. Birchfield and John S. Duffield (eds.), *Toward a Common European Union Energy Policy*: *Problems, Progress, and Prospects* (New York: Palgrave MacMillan, 2011).

an important rationale behind the Community's energy policy.[8] The importance of a secure energy supply was again accentuated by the oil crises during the 1970s. Following the crises, the Council adopted some Resolutions on a Community energy policy with the main objective to secure the energy supply.[9] In 1986, a Council Resolution stressed that 'the Community and the Member States must endeavour to achieve […] more secure conditions of supply and reduced risks of sudden fluctuations in energy prices through [...] geographical diversification of the Community's external sources of supply'.[10]

Energy security has also been in focus in more recent years. In 2008, the Commission adopted 'An Energy Security and Solidarity Action Plan',[11] which stated that the EU should focus on '[i]nfrastructure needs and the diversification of energy supplies; external energy relations; oil and gas stocks and crisis response mechanisms; energy efficiency; and making the best use of the EU's indigenous energy resources'. This was followed by the Commission's Communication 'The EU Energy Policy: Engaging with Partners beyond Our Borders'.[12] In 2012, the Council and the European Parliament adopted a Decision

[8] As explained in Chapter 1, 'A Brief History', the objective of securing the energy supply has been in focus since the Suez crisis; it was one of the main rationales behind the formation of Euratom. On energy security (mainly oil and gas), see Sanam S. Haghighi, *Energy Security: The External Legal Relations of the European Union with Major Oil- and Gas-Supplying Countries* (Oxford: Hart, 2007).

[9] Council Resolution of 17 September 1974 concerning a new energy policy strategy for the Community, OJ 1975 No. C153, 9 July 1975, p. 1; Council Resolution of 17 December 1974 concerning Community energy policy objectives for 1985, OJ 1985 No. C153, 9 July 1975, p. 2; Council Resolution of 17 December 1974 on a Community action programme on the rational utilization of energy, OJ 1975 No. C153, 9 July 1975, p. 5; Council Directive 75/339/EEC of 20 May 1975 obliging the Member States to maintain minimum stocks of fossil fuel at thermal power stations, OJ 1975 No. L153, 13 June 1975, p. 35. Already before the oil crisis, the EEC had started to adopt instruments obliging Member States to maintain emergency stocks. The first emergency oil stock directive was adopted in 1968. See Council Directive 68/414/EEC of 20 December 1968 imposing an obligation on Member States of the EEC to maintain minimum stocks of crude oil and/or petroleum products, OJ 1968 No. L308, 23 December 1968. This has been replaced by Council Directive 2009/119/EC of 14 September 2009 imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products, OJ 2009 No. L265, 9 October 2009, p. 9.

[10] Council Resolution of 16 September 1986 concerning new Community energy policy objectives for 1995 and convergence of the policies of the Member States, OJ 1986 No. C342, p. 1.

[11] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Second Strategic Energy Review: an EU energy security and solidarity action plan, COM(2008) 781 final.

[12] Commission Communication of 7 September 2011 'On security of energy supply and international cooperation – 'The EU Energy Policy: Engaging with Partners beyond Our Borders', COM(2011) 539 final. Some specific measures were also adopted. See, for example, Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning

establishing an exchange mechanism with regard to intergovernmental agreements between Member States and third countries in the field of energy.[13] We can note here that the Commission explains that in addition to this new mechanism, 'the Euratom Treaty provides for ex-ante notification and verification of the bilateral agreements concluded by Member States in this field'.[14] The Commission also points out that what regards 'commercial contracts of supply of nuclear materials concluded by the EU utilities, Euratom Treaty requires Euratom Supply Agency to be a party to contracts and to play an active role in the security of supply of nuclear fuels'.

Energy security is also one of the main rationales behind the Energy Charter Treaty,[15] a multilateral Treaty that covers commercial energy activities such as trade, transit, investments, and energy efficiency. It was originally established to develop the energy potential of the CIS and other countries of Central and Eastern Europe, but its geographical scope has now widened considerably.[16] The European Communities and the EU Member States signed the Treaty in 1994 (together with the Protocol on Energy Efficiency and Related Environmental Aspects),[17] and acceded to it in 1997. One might argue that the EU is not a

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measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, OJ 2010 No. L295, 12 November 2010, p. 1.

[13] Decision No 994/2012/EU of the European Parliament and of the Council of 25 October 2012 establishing an information exchange mechanism with regard to intergovernmental agreements between Member States and third countries in the field of energy, OJ 2012 No. L299, 27 October 2012, p. 13.

[14] The Commission referred here to Article 103 Euratom. See note 7 of COM(2011) 539 final.

[15] The Energy Charter Treaty provides a foundation for 'global energy security, based on the principles of open, competitive markets and sustainable development'. It focuses on the protection and promotion of foreign energy investments; free trade in energy materials, products and energy-related equipment, based on WTO rules; freedom of energy transit through pipelines and grids; reducing the negative environmental impact of the energy cycle through improving energy efficiency; and mechanisms for the resolution of State-to-State or Investor-to-State disputes. The Energy Charter Treaty, Brussels, 17 December 1994, in force 16 April 1998, 2080 UNTS 95; 34 ILM 360 (1995).

[16] The member countries include the EU Member States, Russia, countries in Central Asia and the Caucasus, Japan, Australia, and Mongolia.

[17] The European Communities and the Member States decided to apply it provisionally by virtue of two Council Decisions, one for the EC and one for the Euratom. See Council Decision 94/998/EC of 15 December 1994 on the provisional application of the Energy Charter Treaty by the European Community, OJ 1994 No. L380, 31 December 1994, p. 1; and Council Decision 94/1067/Euratom of 15 December 1994 approving the provisional application of the Energy Charter Treaty by Decision of the Commission on behalf of the European Atomic Energy Community, OJ 1994 No. L380, 31 December 1994, p. 113. The Council and the Commission adopted a Decision on accession in 1997. This time a single Decision was adopted (a Commission decision was needed because according to Article 101 Euratom, it is the Commission that

'unified actor' under this Treaty: The Decision on accession to the Treaty sets out separate methods for establishing the positions the Communities may be required to take within the Energy Charter Conference.

The second 'pillar' of the 'common' energy policy – market liberalisation – started to emerge only in the 1980s. In 1986, the Commission launched its Single Market Programme, which endorsed a competition-oriented approach to integration. In 1988, the Commission adopted a Working Document on the Internal Energy Market,[18] which listed obstacles to the open energy market and outlined the Commission's priorities.[19] The EEC then started to adopt legislation that aimed at the gradual opening of monopolised national electricity markets and natural gas markets to competition. This was part of the more general move to liberalise markets in industries characterised by a high concentration of state ownership, monopoly, public service functions, and sometimes a long lead-time for investments. Many of these industries were so-called 'network industries', including services such as transport, postal services, and telecommunications. The key element for liberalising them was to separate the provision of the network from the services using it and ensuring that network operators give competitors fair access to their networks. Other measures included rules on price transparency.

The discussions on the Commission's 1988 Working Document resulted in 'the first energy package'. It consisted of a directive from 1996 on electricity and a directive from 1998 on gas.[20] This was followed in 2003 by a second energy package,[21] which consisted of two directives and two regulations on electricity

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concludes international agreements). The decision sets out separate methods for establishing the positions the (three) Communities may be required to take within the Energy Charter Conference. See Article 3 of Council and Commission Decision 98/181/EC, ECSC, Euratom of 23 September 1997 on the conclusion, by the European Communities, of the Energy Charter Treaty and the Energy Charter Protocol on energy efficiency and related environmental aspects, OJ 1998 No. L69, 9 March 1998, p. 1.

[18] European Commission, 'Working Document on the Internal Energy Market', COM(1988) 238.

[19] See Leigh Hancher, *EC Electricity Law* (London: Chancery Law Publishing, 1992), pp. 5–10.

[20] Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity OJ 1997 No. L27, 30 January 1997; and Directive 98/30/EC of the European Parliament and of the Council of 22 June 1998 concerning common rules for the internal market in natural gas OJ 1998 No. L204, 21 July 1998, 1. Both Directives are now repealed.

[21] Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive

and gas. The Third Package, adopted in 2009, consists of a range of diverse regulations and directives, which have the aim of further liberalisation.[22] These measures take the internal market provision as their legal bases (now Article 114 TFEU).

In the 1980s, concerns over climate change, the third 'pillar', became part of the EU's energy policy. In the 'Community energy objectives for 1995' established by the Council in 1986, the Council asked for 'balanced solutions as regards energy and the environment'.[23] Following this Resolution, the Commission addressed for the first time the interface between energy and the environment.[24] However, climate change did not come into focus until the late 1990s. An important step was taken in 2007 when the European Council adopted its 'Energy Policy for Europe',[25] with its '20-20-20' targets.[26] These targets were later implemented

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96/92/EC, OJ 2003 No. L176, 15 July 2003, p. 37; Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC, OJ 2003 No. L176, 15 July 2003, p. 57; Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity, OJ 2003 No. L176, 15 July 2003, p. 1; and Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks, OJ 2005 No. L289, 3 November 2005, p. 1.

[22] The Third Energy Package provides, *inter alia*: stricter rules on separation of energy transmission network activities from energy supply and production; it obliges the Member States to establish a regulatory independent National Regulatory Authority; it establishes a new Agency for Cooperation of Energy Regulators; it protects consumers; it establishes European Networks for Transmission System Operators (for electricity and gas); and it encourages long-term investment by requiring those networks to publish ten-year network development plans. The package consists of the following instruments: Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, OJ 2009 No. L211, 14 August 2009, p. 55; Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC, OJ 2009 No. L211, 14 August 2009, p. 94; Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators, OJ No. L211, 14 August 2009, p. 1; Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003, OJ 2009 No. L211, 14 August 2009, p. 15; and Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005, OJ 2009 No. L211, 14 August 2009, p. 36.

[23] Council Resolution of 16 September 1986 concerning new Community energy policy objectives for 1995 and convergence of the policies of the Member States, OJ 1986 No. C241, 25 September 1986, p. 1.

[24] Communication from the Commission to the Council on 'Energy and the Environment', COM(1989) 269 final.

[25] European Council, Presidency Conclusions, 9 March 2007, Annex I: European Council Action Plan (2007–2009), Energy Policy for Europe, doc. 7224/1/07 REV 1.

through the 'climate and energy package',[27] which includes legislation on renewables, emission trading, fuel quality, and carbon capture.[28] These measures took the environmental provision as their legal basis (now Article 192 TFEU).

A fourth pillar, a 'technology pillar', is also discernible in this emerging policy field. In 2008, the European Council adopted the Commission's Strategic Energy Technologies Plan (SET Plan),[29] which proposes a new governance method for energy technologies, based on 'joint strategic planning'. It aims at increasing research to reduce costs and improve performance of existing technologies.

Thus, what is today termed 'energy policy' is in fact a very broad policy field. As this brief account shows, it includes measures on energy security, liberalisation, environment, and technology. The previous absence of an explicit legal basis was not problematic; the EU adopted quite diverse legislation by making use of the legal bases on the internal market (now Article 114 TFEU); environmental protection (now Article 192 TFEU); trans-European networks (now Article 171 and 172 TFEU)[30]; and difficulties in the supply of products in the energy sector (now 122 TFEU). The flexibility clause was also applied (Article 352 TFEU).

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[26] Three key objectives were set for 2020: (1) a 20% reduction in EU greenhouse gas emissions from 1990 levels; (2) raising the share of EU energy consumption produced from renewable resources to 20%; and (3) a 20% improvement in the EU's energy efficiency.
[27] European Council, Presidency Conclusions, 11 and 12 December 2008, doc. 17271/08.
[28] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ 2009 No. L140, 5 June 2009, p. 16; Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community, OJ 2009 No. L140, 5 June 2009, p. 63; Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions and amending Council Directive 1999/32/EC as regards the specification of fuel used by inland waterway vessels and repealing Directive 93/12/EEC, OJ 2009 No. L140, 5 June 2009, p. 88; Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006, OJ 2009 No. L140, 5 June 2009, p. 114; Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020, OJ 2009 No. L140, 5 June 2009, p. 136.
[29] Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions – A European strategic energy technology plan (SET-plan) – 'Towards a low carbon future', COM(2007) 723 final.
[30] Regulation (EC) No 663/2009 of the European Parliament and of the Council of 13 July 2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy, OJ 2009 No. L200, 31 July 2009, p. 31.

However, more than 50 years after an express legal basis had first been discussed, the Member States came to agree on this issue.

Introduction of Article 194 TFEU

The Lisbon Treaty inserted in the TFEU an expressed legal basis for EU energy policy (Article 194 TFEU).[31] We can also note that Article 4.2(i) TFEU lists energy as an area in which competence is shared between the EU and the Member States. EU scholars have paid some attention to the legal implications that follow from the introduction of this expressed legal basis.[32] Does it expand the EU's competence in the field of energy policy or is it a mere 'codification' of a competence that the EU has already found in other legal bases?[33] We shall not seek to answer these questions here; the focus is rather on the relationship between Article 194 TFEU and the Euratom Treaty. How does this new legal basis impact the relationship between the EU Treaties and the Euratom Treaty? In order to understand this relationship and what implications follow from the introduction of the expressed legal basis, a brief examination of Article 194 TFEU is in place. It reads:

> 1. In the context of the establishment and functioning of the internal market and with regard for the need to preserve and improve the environment, Union policy on energy shall aim, in a spirit of solidarity between Member States, to:
>
> (a) ensure the functioning of the energy market;
>
> (b) ensure security of energy supply in the Union;
>
> (c) promote energy efficiency and energy saving and the development of new and renewable forms of energy; and
>
> (d) promote the interconnection of energy networks.

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[31] The Lisbon Treaty introduced the separate energy title XXI, which consists of a single article: Article 194 TFEU.

[32] See e.g., Leigh Hancher and Francesco Maria Salerno, 'Energy Policy after Lisbon', in Andrea Biondi, Piet Eeckhout, and Stefanie Ripley (eds.), *EU law after Lisbon* (Oxford: Oxford University Press, 2012), pp. 367–402.

[33] According to Piris, 'it is difficult to affirm that the competences of the EU have actually been increased in the area of energy, taking into account the possibilities the EC already had to act on the basis of Articles 95, 155, 156, 175 and 308 TEC. These competences have been made explicit and codified in a single Article […] Altogether, it is not obvious that the changes made by the Lisbon Treaty in the area of energy are legally significant. The competence of the EU is made clearer and more explicit but, apparently, not wider. This symbolizes the growing importance attached to this area by the EU.' Jean-Claude Piris, *The Lisbon Treaty: A Legal and Political Analysis* (Cambridge University Press, 2010), p. 319.

2. Without prejudice to the application of other provisions of the Treaties, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall establish the measures necessary to achieve the objectives in paragraph 1. Such measures shall be adopted after consultation of the Economic and Social Committee and the Committee of the Regions.

Such measures shall not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply, without prejudice to Article 192(2)(c).

3. By way of derogation from paragraph 2, the Council, acting in accordance with a special legislative procedure, shall unanimously and after consulting the European Parliament, establish the measures referred to therein when they are primarily of a fiscal nature.

Article 194 TFEU sets out four aims of EU energy policy, which all have to be executed 'in a spirit of solidarity between Member States'. Two of these aims are about 'promotion': Article 194.1(c) aims to promote 'energy efficiency and energy saving and the development of new and renewable forms of energy', and Article 194.1(d) aims to promote 'the interconnection of energy networks'. They do not appear to affect the relationship between the EU Treaties and the Euratom Treaty, because their substantial scope is very different from the Euratom provisions. It is thus hard to see that an overlap should occur.

When it comes to the two other objectives, an overlap between the EU Treaties and the Euratom Treaty seems much more likely. Article 194.1(a) aims to 'ensure the functioning of the energy market', and Article 194.1(b) aims to 'ensure the security of energy supply'. Although 'security of energy supply' is not an explicit objective of the Euratom, it was, as explained in Chapter 1, 'A Brief History', an important rationale behind its creation. We should also point out that the Euratom's supply policy is all about security of supply, albeit in the particular field of nuclear material. According to Article 2(d) Euratom, the Euratom shall 'ensure that all users in the Community receive a regular and equitable supply of ores and nuclear fuels'.

Further, Article 194 TFEU provides a clear link to the internal market: the energy policy aims shall be executed '[i]n the context of the establishment and functioning of the internal market'. As Hancher and Salerno point out, in recent Commission proposals in the field of energy, Article 194 TFEU is replacing

Article 114 TFEU as a legal basis.[34] Article 194 TFEU also provides a link to environmental policy, referring to 'the need to preserve and improve the environment'. There is a potential overlap here to the Euratom's provisions on 'Health and Safety', in particular its radiation protection legislation, which aims at the protection of human health.

Article 194 TFEU is subject to some limitations. The EU shall establish the measures necessary to achieve the objectives in the article, but '[w]ithout prejudice to the application of other provisions of the Treaties'. As the Court held in Case C-490/10 (see Chapter 3 'Nuclear Industrial Development'), this means that Article 194 TFEU is the legal basis intended to apply to all acts adopted by the EU in the energy sector, subject to the more specific provisions laid down by the TFEU on energy, such as Articles 122 TFEU and 170 TFEU. The specific provisions shall apply even if the measures at issue also pursue one of the objectives of the energy policy stated in Article 194 TFEU. Thus, Article 194 TFEU preserves the application of other, more specific, treaty provisions. This may give rise to some uncertainties, because what exactly is 'more specific' in this broad policy field? Further, there is no specific clarification of how this provision relates to the Euratom Treaty.[35] This is instead to be found in Article 106a.3 Euratom, discussed in Chapter 2.

Another limitation is that the measures adopted 'shall not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply'. This provision is 'without prejudice to Article 192(2)(c)', environmental policy. This provision balances between the Member States' sovereignty over natural resources, and the shared competence for other areas.[36]

This brief overview has provided some context for EU energy policy more generally. With this account now behind us, we shall turn to examine the

[34] Hancher and Salerno, 'Energy Policy after Lisbon', pp. 381–2.
[35] It is unclear if the formulation '[w]ithout prejudice to the application of other provisions of the Treaties', applies to the Euratom Treaty, because the Euratom Treaty is not one of 'the Treaties'; it is not mentioned in Article 1(3) TEU or 1.2 TFEU. We can also note that there is no reference in Article 106a.1 Euratom (which lists articles that shall apply to the Euratom) to Article 194 TFEU.
[36] Hancher and Salerno, 'Energy Policy after Lisbon', p. 374.

different provisions and policy areas under the Euratom and see how they relate to the EU Treaties.

Chapter 3: Nuclear Industrial Development

This chapter discusses the Euratom Treaty's central task: to create 'the conditions necessary for the speedy establishment and growth of nuclear industries' (Article 1).[1] Almost all of the Euratom's activities (as listed in Article 2) revolve around nuclear industrial development.[2] But the political landscape has changed considerably since the Treaty came into force in 1958 (and, as pointed out in Chapter 1, 'A Brief History', the economic preconditions have also changed). In light of the divergent perspectives of the Member States with respect to the use of nuclear energy, can the promotion of the nuclear energy industry still be regarded as a desirable common good? Consider, for example, the difference between France and Germany. While France is heavily dependant on nuclear energy (as well as being an important producer), Germany is phasing it out.

The main purpose of this chapter is to examine whether the Euratom (still) has a role to play in this area.[3] The divisions between the Member States raise some normative questions: should we use the Euratom to its full potential? Or should we interpret the provisions as narrowly as possible, and, thus, minimise the Euratom's role? The aim in this chapter is, however, first and foremost, a descriptive one. Yet, I am aware of the fact that normative considerations may colour the way I describe Euratom's role as a promoter of the nuclear industry. An important aspect of this chapter is also to identify overlaps and gaps between the Treaties, and to suggest how to deal with them.

Yet another purpose of this chapter is to assess whether the Euratom is mainly 'dirigiste' (this refers to functions that put an emphasis on economic planning and state intervention) or 'market-oriented' (i.e., functions that refer to anti-

[1] This is reflected in the Treaty preamble, which states that the Member States are 'resolved to create the conditions necessary for the development of a powerful nuclear industry which will provide extensive energy resources, lead to the modernisation of technical processes and contribute, through its many other applications, to the prosperity of their peoples'.
[2] Lawrence Scheinman, 'Euratom: Nuclear Integration in Europe' (1967) 36(563) *International Conciliation*, p. 12.
[3] As pointed out in Chapter 1, 'A Brief History', only a few years after the entry into force of the Treaty, the Euratom had lost much of its significance as the nuclear industry promoter. However, the purpose of this chapter is not to explain 'why the Euratom failed'. To this end, see Lawrence Julian Droutman, *Nuclear integration: the Failure of Euratom* (Ann Arbor: UMI, 1982).

interventionist and neo-liberal ideas). It is sometimes argued that the original EEC was mainly regulatory and market-oriented (although it also contained elements that could be regarded as 'dirigiste' e.g., the agricultural policy), and that the Euratom was mainly 'dirigiste and promotional'. If we assume that this is true (and I will indeed show that this was the case), can the Euratom Treaty still be characterised as 'dirigiste'? How has the application of the Euratom provisions evolved in practice? Why does this matter? Cusack argues that because of this fundamental difference of approach and philosophy, it would be wrong to see the treaty relationship as a dichotomy of *lex specialis* and *lex generalis*. In his view, the Treaties should instead be regarded as autonomous.[4] In other words, the general characteristics might say something about the Treaty relationship today.

It is important to point out that the aim is not to delve deeper into the actual impact of the 'dirigisme' in the Euratom. These concepts are rather used to sort the material and to identify the main characteristics of the Treaty. We shall first examine the provisions that could be regarded as 'dirigiste' and then the provisions that could be regarded as 'market oriented'.

The 'Dirigiste' Organisation

Let us start by examining the Euratom provisions that could be regarded as 'dirigiste' (from French, 'to direct'). As mentioned, 'dirigisme' emphasises the benefits resulting from state intervention. The idea is that governments must dictate the allocation of resources in order to stabilise growth and to promote general welfare (one central figure of this school of thought is the economist John Maynard Keynes). In the post-war years, these ideas were firmly grounded in French politics, and they also came to influence the European project.[5]

This section examines five activity areas. First, it outlines the provisions on 'supplies', which aim at securing access to nuclear materials on a non-

[4] Thomas F Cusack, 'A Tale of Two Treaties: An assessment of the Euratom Treaty in Relation to the EC Treaty' (2003) 40 *Common Market Law Review* 117–42.
[5] See for example, Vivien A. Schmidt, *From state to market?: the transformation of French business and government* (Cambridge: Cambridge University Press, 1996), in particular, p. 77.

discriminatory basis. Then it examines the 'ownership' provisions, which provide that the Euratom is the owner of all 'special fissile materials' in the Community. These provisions have been described as being the 'most unique' and 'mysterious features' of the Euratom.[6] Thereafter, it analyses the provisions on 'Investment' and then the intertwined relationship between nuclear research under the Euratom Treaty and 'general' research under the TFEU. Finally it explores the provisions on 'dissemination of information'.

3.1 Supply

When the Euratom Treaty was drafted, there was a shortage of nuclear materials.[7] The treaty founders therefore decided that one of the Euratom's tasks would be to 'ensure a regular and equitable supply of ores and nuclear fuels to all users in the Community' (Article 2d). The provisions are outlined in Title II, Chapter 6, Articles 52–76 Euratom.[8] The supply is ensured by a common supply policy, which is based on 'the principle of equal access for all users' (Article 52(1)). The Treaty prohibits 'all practices designed to secure a privileged position for certain users' (Article 52(2)(a)). The supply policy would 'equalize the unequal endowment in natural atomic resources in the six countries' and 'foreclose a danger to Euratom policies and objectives being disrupted by a particularly favourable bilateral agreement granted solely to one of the Member States by a third state'.[9] However, not long after the Treaty had come into force, the availability of nuclear material increased. New deposits were discovered. The supply policy lost its significance as the users already had access to sufficient amounts of materials.[10] Consequently, as Bouquet explains, to the extent that the

[6] André Bouquet, 'How Current are Euratom Provisions on Nuclear Supply and Ownership in View of the European Union's Enlargement?' (2001) 68 *Nuclear Law Bulletin* 27–38 at 27.
[7] Scheinman, 'Euratom: Nuclear Integration in Europe', p. 16.
[8] The supply provisions are of a specified, limited scope. They concern supply of 'ores, source materials and special fissile materials' as defined in Article 197. The provisions have a narrower scope than the provisions on the 'Nuclear Common Market' (Title II, Chapter 9, Articles 92–100), which are defined in Annex IV. Some of the goods and products listed in Annex IV are not subject to the supply provisions (mainly those in List A2 and B).
[9] Jaroslav G., Polach, *EURATOM: Its Background, Issues and Economic Implications* (New York: Dobbs Ferry, 1964), pp. 78–9.
[10] Polach, *EURATOM*, pp. 131–2.

supply provisions have been applied at all, they have been applied in a very simplistic manner.[11]

This section considers the function of the supply provisions today. It briefly outlines the provisions before examining three cases that clarify the role of the provisions today: the *ENU* case, the *KLE* case, and the INB case. Finally, it examines the possibility to revise the supply provisions.

3.1.1 The Supply Provisions and the Supply Agency

The supply provisions are outlined in Articles 52 to 76 Euratom. The Treaty establishes the Euratom Supply Agency, which implements the supply policy. It has been operational since 1960. In Chapter 2 ('The Structural Relationship'), we saw that the Supply Agency is an agency *sui generis*. We shall now look a bit more closely at its functions. The Agency has an exclusive right to conclude supply contracts relating to nuclear materials 'coming from inside the Community or from outside'. It also has 'a right of option' on nuclear materials produced in the Member States (Article 52). The right of option means that the producers have to offer to the Agency any nuclear materials prior to any transaction (i.e., before the materials are used, transferred, or stored).[12] If the Agency does not exercise this right, the Commission shall authorise the producer to dispose of the available production outside the Community, 'provided that the terms he offers are not more favourable than those previously offered to the Agency' (Article 59).[13] Some supply contracts also have to be authorised by the Commission. This is the case for contracts on exports of nuclear materials produced in the Community (Article 59 and 62) and contracts longer than 10 years (Article 60). Some supply contracts only have to be notified to the Agency. This concerns contracts dealing

[11] See Bouquet, 'How Current are Euratom Provisions on Nuclear Supply and Ownership in View of the European Union's Enlargement?'.
[12] Article 57 Euratom. Further, Article 58 Euratom clarifies that 'where a producer carries out several stages of production from extraction of the ore up to and including production of the metal, he may offer the product to the Agency at whichever stage of production he chooses.'
[13] Special provisions apply for the Euratom's option on 'special fissile materials' (see definition in Article 197). Special fissile materials may be exported only through the Agency and in accordance with Article 62 Euratom. The existence of special rules can explained by the fact that special fissile material can be used for military applications.

with the transfers of small quantities (Article 74)[14] and contracts relating to the 'processing, conversion, or shaping of materials' (Article 75). The Court has held that the supply policy is an exclusive competence.[15]

The Agency Statute lays down some detailed provisions.[16] The Council adopted the first Agency Statute in 1958. When the Statute was revised in 2008,[17] the Council expanded the scope of the Agency's tasks. In addition to the tasks mapped out above, the Agency now also has a role of a 'nuclear market observatory': it provides information and advice in nuclear materials and services, and it monitors and identifies market trends.[18] Thus, this new role is expressed in secondary law rather than in treaty provisions. In addition to the Statute, there are 'Agency Rules'. We shall now explain how these Rules fundamentally changed the function of the Agency.

3.1.2 The Simplified Procedure and the ENU Case

As mentioned, the Supply Agency has to conclude all supply contracts (with some exceptions). Already from the outset, however, the Agency's role was confined to that of an intermediary; the commercial aspects were left to the

[14] See also Commission Regulation (Euratom) No. 66/2006 of 16 January 2006 exempting the transfer of small quantities of ores, source materials, and special fissile materials from the rules of the chapter on supplies, OJ 2006 No. L11, 17 January 2006, p. 6. This repealed Commission Regulation No 17/66/Euratom of 29 November 1966 exempting the transfer of small quantities of ores, source materials and special fissile materials from the Rules of the Chapter on Supplies OJ 1966 No. 241, 28 December 1966, p. 4057, English special edition: Series I Chapter 1965–1966 p. 297, amended by Commission Regulation (Euratom) No 3137/74, OJ 1974 No. L333, 13 December 1974, p. 27.

[15] In *Ruling* 1/78, the Court held that the supply provisions 'show the care taken in the Treaty to define in a precise and binding manner the exclusive right exercised by the Community in the field of nuclear supply in both internal and external relations'. See Ruling 1/78, Draft Convention of the International Atomic Energy Agency on the Physical Protection of Nuclear Materials, Facilities and Transports [1978] ECR 2151.

[16] Article 54 Euratom. The Statute of the Agency was adopted on 6 November 1958, see OJ 1958 No. 27, 6 December 1958, p. 534.

[17] Council Decision 2008/114/EC, Euratom of 12 February 2008 establishing Statutes for the Euratom Supply Agency, OJ No. L41, 15 February 2008, p. 15. Note that this Decision was adopted also on the basis of the EC Treaty.

[18] The revised Statute was also adopted in order to apply 'modern financial provisions' to the Agency; to fix its seat to Luxembourg; and to take into account the increase in the number of the Member States, in particular, the size of the Agency's Advisory Committee. See http://ec.europa.eu/euratom/observatory_en.html.

contract parties.[19] In 1960, a simplified procedure was set up under the Agency Rules.[20] The simplified procedure applied when there was a clear surplus over demand of certain products. The users and producers could then negotiate the contracts directly with each other, without the involvement of the Supply Agency. The parties only had to submit the contract to the Agency, which signed them. If the Agency did not object within a certain period of time, the contract was considered as 'concluded by the Agency'. In 1975, the Rules were amended again and a new simplified procedure was introduced.[21] Also under the new procedure, the contract shall be submitted to the Agency for signature. The difference is that the Agency now has a duty to act; it must either conclude or refuse to conclude the contract within 10 working days from the time that the contract has been submitted. If the Agency refuses to conclude a contract, it shall notify the parties in a reasoned decision. That decision may be referred to the Commission and it can be challenged before the Court.

In the *ENU* case,[22] the question was raised of whether the simplified procedure is compatible with the Euratom Treaty's supply provisions. The facts of the case are as follows: A Portuguese natural uranium producer, Empresa Nacional de Urànio SA (the 'ENU'), exported all its production, as there were no nuclear reactors in Portugal.[23] It had concluded a long-term contract with Electricité de France (EDF), which involved 75% of its production. When the EDF did not renew that contract, the ENU ran into difficulties. The ENU therefore requested

[19] See First General Report on the Activities of the Community (January 1958 to September 1958).
[20] The simplified procedure was introduced as Article 5 in the Agency rules: 'If, in respect of a specific product and where in particular the Agency takes the initiative, the Commission, having heard the Advisory Committee, finds that the situation on the market shows a clear surplus of supply over demand, it may, by means of an appropriate directive, call upon the Agency to apply the simplified procedure'. See Rules of the Supply Agency of the European Atomic Energy Community determining the manner in which demand is to be balanced against the supply of ores, source materials and special fissile materials, OJ 1960 No. 32, 11 May 1960, p. 777. According to Article 60 Euratom, the Supply Agency shall adopt Agency rules, with the approval of the Commission. The rules shall determine the manner in which demand is to be balanced against supply.
[21] The new simplified procedure was introduced as Article 5*bis* of the Agency rules. See Regulation of the Supply Agency of the European Atomic Energy Community amending the rules of the Supply Agency of 5 May 1960 determining the manner in which demand is to be balanced against the supply of ores, source materials and special fissile materials, OJ 1975 No. L193, 25 July 1975 p. 37.
[22] Case C-357/95 P, *Empresa Nacional de Urânio SA (ENU)* v. *Commission of the European Communities* ('the *ENU* Case') [1997] ECR I-1329. See also the Opinion of AG Fennelly.
[23] The ENU produced approximately 5 % of the Community's total production.

the Supply Agency to exercise its right of option on its output (pursuant to Article 57). It also contacted the Commission. The Commissioner for Energy requested the Supply Agency to submit proposals to resolve the situation. The Supply Agency did so, but it could not find users prepared to take the ENU's supplies at the price demanded. The ENU then requested the Commission to order the Supply Agency to exercise its right of option and to restore the proper functioning of the machinery established by the supply provisions. The Commission rejected these requests by a formal decision.[24]

Thereafter, the ENU brought an action before the Court of First Instance to annul the Commission's Decision.[25] It also brought an action for a declaration that the Community was liable on the ground of breach of the supply provisions. The ENU argued that the Treaty imposed an obligation to ensure disposal of its production. It also disputed the lawfulness of the 'simplified procedure'. The CFI dismissed these applications. It held that the tasks of the Agency were limited to ensure that all Community users receive regular and equitable supplies, but that the supply scheme did not guarantee preferential disposal of Community production.

The ENU then brought an appeal to the ECJ, claiming, *inter alia*, that the CFI had failed to examine whether the simplified procedure was valid. The ENU argued that neither the Agency nor the Commission was authorised to establish a procedure distinct from the one laid down in the Supply Provisions. It also argued that the supply system should not be adapted to new circumstances through Agency Rules; instead, the simplified *treaty revision* procedure (Article 76 Euratom) should be applied. In ENU's view, the simplified procedure established under the Agency Rules deprived the production sector of all protection because it gives users the freedom to obtain supplies from outside the Community.

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[24] The Commission did not take a decision at first. The ENU brought proceedings for failure to act against the Commission under Article 148 Euratom (repealed by the Lisbon Treaty and replaced by the reference in Article 106a Euratom to Article 265 TFEU). The ECJ found that the Commission had failed to give a decision on ENU's request. Case C-107/91, *ENU* v. *Commission* [1993] ECR I-599. To comply with this judgment on failure to act, the Commission adopted Commission Decision 93/428/Euratom of 19 July 1993 on a procedure for the application of the second para of Article 53 of the EAEC Treaty, OJ 1993 No. L197, 6 August 1993, p. 54, where it formally rejected ENU's request.

[25] Joined Cases T-458/93 and T-523/93, *ENU* v. *Commission* [1995] ECR II-2459.

The ECJ stated that if it could be established that the Supply Provisions do not oblige the Agency or the Commission to guarantee disposal of that production, it would be unnecessary to rule on the alleged unlawfulness of the simplified procedure.[26] The Court reminded that 'the Agency was established to guarantee […] one of the essential aims which the Treaty assigns to the Community, […] namely to ensure that all users in the Community receive a regular and equitable supply of ores and nuclear fuels'.[27] The Court then held that no provision obliged the Agency to guarantee the disposal of ENU's uranium production and that 'there were no special circumstances such as to show the existence of a threat or a possible threat to the fundamental objective of a regular and equitable supply of ores and nuclear fuels'.[28] The Court explained that 'in those circumstances, no provision [...] obliged the Agency to guarantee the disposal of ENU's uranium production'.[29] The Court stressed that the Agency has the discretion to refuse to conclude supply contracts, which could run counter to the attainment of the Euratom objectives.

This case clarifies that the Supply Agency cannot be used to protect single users, at least if there is no threat or possible threat to the fundamental objective of a regular and equitable supply. Hence, the Euratom Supply Policy is different from the Common Agricultural Policy (CAP), where subsidised production is (or at least was) an important element. The CAP was established following a long period of severe food shortages after the Second World War. One of its main rationales was to help European farmers to be competitive and thereby secure the food supply. The motivation behind the supply policy was different. As Polach points out, the Euratom supply policy was about equalising 'the unequal endowment in natural atomic resources in the six countries' and it would 'foreclose a danger to Euratom policies and objectives being disrupted by a particularly favourable bilateral agreement granted solely to one of the Member States by a third state'.[30] In other words, the Euratom Supply Policy was not about helping producers of nuclear materials to be competitive – but about

[26] *ENU*, para 43.
[27] Ibid., para 45.
[28] Ibid., 47.
[29] Ibid., 48.
[30] Polach, *EURATOM*, pp. 78–9.

preventing a particularly favourable bilateral agreement from being granted solely to one of the Member States by a third state.[31]

3.1.3 The Diversification Policy and the KLE Case

At the beginning of the 1990s, the Newly Independent States (the 'NIS', i.e., the post-Soviet States) started to sell significant quantities of uranium to the Western markets. The prices were below those on the world market. The Supply Agency and the Commission considered that unlimited imports from these countries would make the Community too dependent on that supply source, and this was a potential danger to the Community's security of energy supply. Both the Euratom and the United States imposed restrictions in order to avoid excessive dependence. While the United States imposed trade restrictions in the form of quantitative export limitations, the Euratom used its Supply Policy, namely, the Supply Agency's power to conclude and refuse contracts.

This 'diversification policy' was based on a Council Resolution from 1986,[32] which set out the aim of geographical diversification of the Community's external sources of supply.[33] It concerned energy policy in general and not nuclear energy or the supply or nuclear material specifically. The supply of nuclear materials was thus considered as a part of the general policy on security of supply. The diversification policy was also based on a Trade Agreement from 1990 between the EEC and Euratom on the one part, and the Soviet Union on the other.[34] The

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[31] At the time of treaty negotiations, it was foreseen that the Euratom Member States would receive nuclear material from the United States under the Euratom-U.S. agreement. It would not have been possible to adopt a system based on protection of single users.

[32] Council Resolution of 16 September 1986 concerning new Community energy policy objectives for 1995 and convergence of the policies of the Member States, OJ 1986 No. C342, p. 1.

[33] The Resolution set out: 'the energy policy of the Community and of the Member States must endeavour to achieve […] more secure conditions of supply and reduced risks of sudden fluctuations in energy prices through […] geographical diversification of the Community's external sources of supply'. Ibid.

[34] Commission Decision 90/117/Euratom of 27 February 1990 concerning the conclusion on behalf of the European Atomic Energy Community of the Agreement between the European Economic Community and the European Atomic Energy Community and the Union of Soviet Socialist Republics on trade and commercial and economic cooperation, OJ 1990 No. L68, p. 2. While the Commission concluded the Agreement for the part of the Euratom, the Council concluded it for the part of the EEC. The Council Decision (based on the EEC Treaty) also included an approval of the Agreement 'for the purposes of conclusion by the Commission on behalf of the European Atomic Energy Community'. See Council Decision 90/116/EEC of 26 February 1990 on the conclusion by the European Economic Community of an Agreement between the European

Trade Agreement aimed to promote the principle of market economy in the NIS as well as the diversification of nuclear trade.[35]

In 1994, the issue on nuclear trade was brought up in the negotiations under the Partnership and Co-operation Agreement with Russia. The parties agreed to take all necessary steps to reach an agreement by 1997.[36] Meanwhile, the Council and the Commission adopted an 'informal' joint declaration: the 'Declaration of Corfu'.[37] The Declaration sets a limit on individual users' dependence on uranium from the CIS: an individual user cannot depend on natural uranium from these countries for more than 25% of their needs (20% for enriched uranium).

The 'diversification policy' was challenged in the *KLE* case.[38] The facts are briefly as follows: A German company, Kernkraftwerke Lippe-Ems ('KLE'), had concluded a supply contract concerning 400 tonnes of natural uranium with a company established in the UK, British Nuclear Fuels Plc ('BNFL'). In 1993, when receiving the contract for signature, the Supply Agency asked the contracting parties for information about the origin of the uranium. The BNFL informed that the uranium would come from the NIS. The Supply Agency concluded the contract, but with the condition that the natural uranium did *not* come from the NIS. The KLE referred the Supply Agency's decision to the Commission (pursuant Article 53), which considered it lawful.[39] The KLE then brought an action to the CFI for annulment of the Commission's Decision.[40]

Economic Community and the European Atomic Energy Community and the Union of Soviet Socialist Republics on trade and commercial and economic cooperation, OJ 1990 No. L68, 15 March 1990, p. 1.

[35] See, in particular, Article 14 of the Agreement, which stated: 'Goods shall be treated between the Contracting Parties at market-related prices'.

[36] See Joint Memorandum of the Delegations of the Russian Federation and the European Communities on Nuclear Trade in The Energy Charter Treaty and Other Related Documents, Energy Charter Secretariat, p. 159, available at http://www.ena.lt/pdfai/Treaty.pdf.

[37] The Corfu Declaration is signed in Corfu on 24 June 1994. It is not published, but is mentioned in Communication from the Commission to the Council and the European Parliament: Nuclear safety in the European Union, COM(2002) 605 final.

[38] C-161/97 P, *Kernkraftwerke Lippe-Ems GmbH* v. *Commission of the European Communities* ('the *KLE* Case') [1999] ECR I-2057. See also Opinion of AG Léger.

[39] Commission Decision of 4 February 1994 relating to a procedure in application of the second paragraph of Article 53 of the Euratom Treaty, OJ 1994 No. L48, 19 February 1994, p. 45. The KLE had also accused the Agency of failure to act; it claimed that the Supply Agency had neither concluded nor refused to conclude the contract within 10 working days. The Commission

The CFI stated that within the framework of the simplified procedure, the Agency has the right to object to a contract that might prejudice the achievement of the Treaty objectives.[41] It explained that the Agency generally has to observe the principle of balancing supply and demand in its exclusive right to conclude supply contracts.[42] It pointed out that the Agency is obliged to meet all orders, 'unless prevented from so doing by legal or material obstacles' (Article 61).[43] The CFI held that the Agency must ascertain in each case whether there are any such legal or material obstacles. The Commission claimed that there were three such obstacles.[44]

The first obstacle, the Commission claimed, was that the contract between KLE and BNFL was incompatible with the diversification policy. If unlimited imports from the CIS were allowed, Community undertakings would become too dependent on that source of supply.[45] The continuity of supplies could not be guaranteed in the long term, and alternative sources might disappear. The CFI stated that 'in order to ensure geographical diversification of external sources of supply, the Agency has a discretion […] to bar certain imports of uranium which would reduce such diversification'.[46] The possibility could not be ruled out that ensuring a regular and equitable supply 'could be jeopardised if imports of nuclear materials from the CIS were permitted to continue in unlimited quantities and replaced supplies from other sources for a certain time without there being any guarantee of continuity of supplies in the long term'.[47]

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decided that the Supply Agency had acted within the time limit. See Commission Decision 94/285/Euratom of 21 February 1994 relating to a procedure in application of the second paragraph of Article 53 of the Euratom Treaty, OJ 1994 No. L122, 17 May 1994, p. 30. The KLE were then seeking annulment of the Commission's two decisions at the Court of First Instance. The KLE instituted proceedings before the CFI against the two Commission Decisions seeking their annulment.

[40] Joined Cases T-149/94 and T-181/94 [1997] ECR II-161. The KLE were seeking annulment of the Commission's two decisions at the Court of First Instance. On this case, see Euratom Supply Agency, Annual Report 1997, pp. 11–13.

[41] Joined Cases T-149/94 and T-181/94, para 86.

[42] Ibid., para 87.

[43] Ibid., para 88.

[44] Ibid., para 89.

[45] Ibid., para 91.

[46] Ibid., para 92, see also *ENU* v. *Commission*, para 68.

[47] Ibid., para 95.

The second obstacle as pointed out by the Commission concerned the supply system's aim to ensure that nuclear materials are imported into the Community at market-related prices. The CFI pointed out that this principle was enshrined in the Trade Agreement from 1990 and that this Agreement formed part of EU law.[48] The CFI also analysed available data on prices to verify that the Trade Agreement was correctly applied.[49] It found that the contract did not comply with the rule on market-related prices. The third obstacle concerned the risk of a privileged position if one user could take more than the share of the allowed supply. This was derived from the Supply Agency's obligation to ensure equal access to nuclear material (Article 52.1 Euratom).

The CFI accepted the existence of all three obstacles relied on by the Commission. It concluded that the Agency had not committed an error of law or manifest error of assessment when it refused to conclude the supply contract unconditionally and inserted in that contract a condition that the uranium was not to come from the CIS.[50] Consequently, the Commission's decision confirming that of the Agency could not be declared unlawful.[51] The CFI also decided that the Agency's fixed threshold for dependence was justified (i.e., that an individual user could not depend on natural uranium from these countries for more than 25% of their needs, or 20% for enriched uranium).

The ECJ upheld the CFI's judgement on appeal.[52] The Court confirmed the legality of the supply policy as well as its enforcement through individual decisions on the conclusion of supply contracts.[53] The ECJ reiterated the CFI's finding that the Agency has a broad discretion when exercising its powers.[54]

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[48] Ibid., paras 96 and 99.
[49] Ibid., para 100.
[50] Ibid., para 107.
[51] Ibid., para 108.
[52] Case C-161/97 P, *Kernkraftwerke Lippe-Ems GmbH* v. *Commission* [1999] ECR I-2057. The ECJ examined the first legal obstacle, and found that the complaints made against the CFI's finding must be rejected as the KLE had merely reiterated its arguments. There was no need to examine the KLE's criticism to the other legal obstacles.
[53] Euratom Supply Agency, Annual Report, 1997, p. 10.
[54] *KLE*, para 90, and *ENU* v. *Commission*, para 67.

The *KLE* is an important case because it strengthens the role of the Agency. The Court confirms that the signature of the Agency is not only a formality,[55] but that its powers are, in fact, rather far-reaching. The Court also confirmed that the supply provisions have an important role to play in securing energy supply by ensuring geographical diversification.

3.1.3.1 The Aftermath of the KLE Case

The 'diversification policy' was, however, of great concern for Russia. In the framework of the EU-Russia Energy Dialogue, Russia complained that the Corfu Declaration was incompatible with the WTO rules.[56] At the EU-Russia summit in 2002, the High Representative and President Putin declared in a Joint Statement that they had agreed to reach a mutually acceptable solution in the Partnership and Co-operation Agreement.[57] Consequently, in 2003, the Council authorised the Commission to undertake the negotiation of a nuclear trade agreement with Russia.[58] The Commission presented a draft agreement to Russia,[59] but the negotiations did not show progress.[60] In 2009, the Council approved a renewed mandate to undertake negotiations.[61] It aims for 'a broad cooperation agreement on peaceful uses of nuclear energy'.[62] In 2010, discussions were initiated about

[55] European Parliament, Directorate-General for Research, 'The European Parliament and the Euratom Treaty: Past, Present and Future', Working Paper, Energy and Research Series, 2-2002, pp. 101–2.
[56] A Commission Communication from 2002 points out the difficulties in the negotiations: 'Every official meeting, including EU-Russia summit meetings, is treated as another opportunity for the Russians to protest about restrictions and to call for a satisfactory resolution on trade in nuclear materials, which has been blocked since 1994'. See Communication from the Commission to the Council and the European Parliament – Nuclear safety in the European Union, COM(2002) 605 final.
[57] Joint Statement by V.V. Putin, President of the Russian Federation, J. M. Aznar, President of the European Council/High representative for Common Foreign and Security Policy of the EU, and R. Prodi, President of the Commission of the European Communities, Moscow, 29 May 2002, 9424/02 (Presse 171), Annex 2.
[58] Euratom Supply Agency, Annual Report 2003, pp. 10–11.
[59] Euratom Supply Agency, Annual Report, 2004, p. 9.
[60] Euratom Supply Agency, Annual Report, 2006, p. 10.
[61] Only in 2008, some technical discussions were initiated. In 2009, the Commission submitted a new proposal for a renewed mandate to undertake negotiations. Euratom Supply Agency, Annual Report, 2008, p. 8.
[62] Euratom Supply Agency, Annual Report, 2009, p. 8.

the setting up of 'an overall framework for political, technical and industrial cooperation'.[63]

Meanwhile, the diversification policy had slowly started to change. Some of the new Member States that entered the EU in 2004 were completely dependent on nuclear materials from Russia. It was not possible to impose the strict limits on users in these Member States.[64] Doing so would be contrary to the very objective of the supply policy, i.e., to ensure the regular supply of nuclear material. Some contracts were also automatically grandfathered under Article 105 Euratom, which stipulates that contracts concluded before accession of new Member States may continue to be implemented.[65]

Another factor that has led to a transformed diversification policy is the fact that Russia joined the WTO in 2012. This might have forced the Supply Agency to adopt a somewhat more cautious approach. In fact, it is no longer the Corfu Declaration that governs nuclear trade (i.e., the 20% limit on a utilisers' supply); the Agency now merely gives 'recommendations' to the utilisers. A quantitative limit is no longer provided,[66] but the dependency from the CIS has to be 'reasonable'. Aside from the obvious difficulties in deciding what is constitutes 'reasonable' in this case, it should also be pointed out that this is not a question of mere 'recommendations', because the recommendations are enforceable. As the Court ruled in the *KLE* case, the Supply Agency has the discretion not to sign a contract, and thus bar imports, in order to ensure the geographical diversification of external sources of supply.[67] There is a potential tension here between the supply policy and the WTO rules. It should be pointed out that the

[63] Euratom Supply Agency, Annual Report, 2010, p. 7. In 2011, it was decided to set up a new nuclear working group under the EU-Russia Energy Dialogue with the aim to advance cooperation in the nuclear field, including a 'comprehensive bilateral cooperation agreement on peaceful uses of nuclear energy'. Euratom Supply Agency, Annual Report, 2011, p. 7.
[64] The informal practice changed to 30% and soon 40% will be allowed. Interview with a Supply Agency Official, November 2012.
[65] Article 105 reads: The provisions of this Treaty shall not be invoked so as to prevent the implementation of agreements or contracts concluded before 1 January 1958 or, for acceding States, before the date of their accession, by a Member State, a person or an undertaking with a third State, an international organisation or a national of a third State where such agreements or contracts have been communicated to the Commission not later than 30 days after the aforesaid dates.
[66] Interview with a Euratom official, Luxembourg, November 2012 and June 2013.
[67] Joined cases T-149/94 and T-181/94, ECR [1997] II-161, para 92, see also *ENU* v. *Commission*, para 68.

WTO provides a 'nuclear exception' from the general prohibition of quantitative restrictions on imports and exports.[68] This relates to measures on 'essential security interests'. If interpreted broadly, this exception might include the diversification policy to ensure security of supply.[69]

3.1.4 The INB Case

A few words need to be said about the *INB* case, in which the Court delimited the material scope of the supply provisions.[70] The case concerned 'enrichment', which is a procedure that transforms natural uranium by increasing the concentration of the isotope U-235.[71] The result is enriched uranium, which can be used as nuclear fuel in reactors. The Court had to decide whether enrichment activities were to be considered as 'production' or 'service'.

According to Article 75 Euratom, which was central in this case, the supply provisions (and also the ownership provisions, see next section) shall *not* apply to commitments relating to 'processing, conversion or shaping' of materials. The question was whether 'enrichment' would fall under this treaty article. If enrichment were equal to 'processing, conversion or shaping', the supply provisions would not apply (i.e., enrichment would be considered as a 'service'). If enrichment were not to relate to 'processing, conversion or shaping', then the supply provisions would apply (enrichment would be considered as 'production'). This is an important issue, because it decides whether the Supply Agency has to sign enrichment contracts.

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[68] Article XXI(b)(ii) on the Security Exceptions reads: 'Nothing in this Agreement shall be construed… (b) to prevent any contracting party from taking any action which it considers necessary for the protection of its essential security interests: … (i) relating to fissionable materials or the materials from which they are derived.' General Agreement on Tariffs and Trade 1994 art. I, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 UNTS. 154, 33 ILM 1153 (1994).

[69] On this point, see Lutz Strack, 'The Safety Regime for Transboundary Movements of Radioactive Waste and its Compatibility with the Trade Regime of the WTO' (2004) *Nuclear Law Bulletin*.

[70] Joined Cases C-123/04 and C-124/04, *Industrias Nucleares do Brasil SA and Siemens AG* v. *UBS AG* (C-123/04) and *Texas Utilities Electric Corporation* (C-124/04) ('the *INB* Case') [2006] ECR I-7861.

[71] On enrichment, see footnote 11 in Chapter 2 ('A Brief History').

The Court held that enrichment means that the uranium 'is returned in a different form and, therefore, giving the ordinary meaning to the term, converted'.[72] The Court referred to Advocate General Maduro's Opinion[73] and held that the terms 'processing, conversion and shaping' are generic terms; they do not lead to the conclusion that certain types of special fissile materials are outside their scope.[74] The Court also held that this analysis was confirmed by the general scheme and purpose of the supplies chapter. The effect of Article 75 was to remove substances that were the subject of contract work ('processing, conversion and shaping') from the ambit of the supply system. The Court explained that Article 75 concerns situations that are not deemed to affect the regular and equitable supply to Community users of ores and nuclear fuels. This applied to the process involving the enrichment in the Community of uranium from a third State which is to be returned to a third State. Such processes are neutral as regards the Community supply. The Court concluded that Article 75 was to be interpreted as meaning that the terms 'processing, conversion and shaping' also encompass enrichment, i.e., enrichment is a 'service'.[75]

Consequently, the supply provisions do not apply to enrichment. Thus, the Supply Agency does not have to sign such contracts. The Commission had argued that this is a serious limitation of the Treaty. But as both the Court and the AG pointed out, this does not mean that enrichment is free from all forms of control. The Member States still have to notify the Agency of such commitments. The Commission may even prevent certain commitments 'if it considers that the conversion or shaping cannot be carried out efficiently and safely and without the loss of material to the detriment of the Community' (Article 75(2) Euratom).

[72] *INB*, para 38.
[73] Ibid., paras 42–60.
[74] See also Joined Cases C-123/04 and C-124/04, *Industrias Nucleares do Brasil SA and Siemens AG* v. *UBS AG* (C-123/04) and *Texas Utilities Electric Corporation* (C-124/04) [2006] ECR I-7861, Opinion of AG Maduro, para 53.
[75] See *INB*, paras 34–46. Note that in deciding whether enrichment was production or a service, the United States Supreme Court came to the opposite conclusion, i.e., enrichment is a product. The Court held that enriched uranium is fungible and trades like a commodity. United States v. Eurodif S.A., 129 S.Ct. 878 (Jan. 26, 2009).

3.1.5 Revision of the Supply Provisions?

The brief overview has shown that the supply provisions still have some significance, although they are applied only in a 'simplistic manner', i.e., they are applied very restrictedly. It should also be pointed out that some provisions have not been applied at all.[76] There have been attempts to amend the provisions, but they have not been successful, despite the fact that the Treaty contains a specific simplified treaty revision procedure (Article 76 Euratom).[77] Under this procedure, provisions may be amended on the initiative of a Member State or the Commission. The Council shall act unanimously on a proposal from the Commission and after consulting the European Parliament. The procedure applies 'particularly if unforeseen circumstances create a situation of general shortage'. The Commission has submitted proposals to amend the supply provisions, suggesting, *inter alia*, that the supply monopoly would be abolished. However, a change has never been achieved.[78]

In Case 7/71 *Commission* v. *France*,[79] which ironically was the first Euratom case, France questioned the validity of the entire Chapter 6 on 'Supplies'.[80] In focus was Article 76(2) Euratom, which reads:

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[76] Consider, for example, Article 70 Euratom, which provides that the Commission may give financial support to prospecting programmes and make recommendations to the Member States with a view to the development of prospecting for and exploitation of mineral deposits. If the Council finds that prospecting activities are 'markedly inadequate' despite the fact that the prospects for extraction appear economically justified, 'the Member State concerned shall […] be deemed to have waived, both for itself and for its nationals, the right of equal access to other sources of supply within the Community'. This provision was clearly intended for situations with a general shortage of supply material, which, as mentioned, has never occurred.

[77] Article 76 reads: 'On the initiative of a Member State or of the Commission, and particularly if unforeseen circumstances create a situation of general shortage, the Council may, acting unanimously on a proposal from the Commission and after consulting the European Parliament, amend the provisions of this Chapter. The Commission shall inquire into any request made by a Member State'. Similar provisions are found under Chapter 7 on 'Safeguards' (Article 85) and Chapter 8 on 'Ownership' (Article 90). The simplified procedure in Article 48.6 TEU does not apply to the Euratom Treaty.

[78] In 1979, France requested new Commission proposals, and consequently, the Commission submitted a Proposal for a Council Decision adopting new provisions relating to Chapter VI (Supplies) of the Treaty establishing the European Atomic Energy Community, COM(1982) 732 final, OJ 1982 No. C330, 16 December 1982, p. 4 (amended by COM(1984) 606 final). For a commentary on these proposals, see Donald Allen, 'The Euratom Treaty Chapter IV: New Hope of False Dawn?' (1983) 20 *Common Market Law Review*, 473–94; and Reinhard Loosch, 'Der Vorschlag der Euratom Kommission zur Neuregelung der Versorgungsvorschriften des Kapitels VI im Zweiten Titel des Euratom-Vertrages' (1966) *Europarecht*, 296. Proposals had previously been submitted by the Commission in 1964. The proposal is mentioned in a Resolution of the European Parliament, OJ 1965 No. 119, p. 1991 (amended in 1970 by SEC(70)3946 def.).

[79] Case 7/71, *Commission* v. *France* [1971] ECR 1003.

Seven years after 1 January 1958, the Council may confirm these provisions in their entirety. Failing confirmation, new provisions relating to the subject matter of this Chapter shall be adopted in accordance with the procedure laid down in the preceding paragraph.

France claimed that the supply provisions had become null and void, since the Council had not confirmed them according to this provision. The Court clarified that the provisions still apply because it could not be presumed that provisions of the Treaty have lapsed:

The Member States agreed to establish a Community of unlimited duration, having permanent institutions invested with real powers, stemming from a limitation of authority or a transfer of powers from the States to that Community.[81] [...] Powers thus conferred could not, therefore, be withdrawn from the Community, nor could the objectives with which such powers are concerned be restored to the field of authority of the Member States alone, except by virtue of an express provision of the Treaty.[82] [...] Even an abstention by the Council from exercising the powers which it holds under the second paragraph of Article 76 with a view to adapting the provisions of this chapter in the light of experience, cannot have the effect of cutting the ties which the Member States have agreed to establish between themselves and of dissolving the obligations thereby incumbent on each of them. [...] To admit that the whole of Chapter VI lapsed without any new provisions simultaneously coming into force would amount to accepting a break in continuity in a sphere where the Treaty, particularly by Article 2, has prescribed the pursuit of a common policy.[83]

This case confirmed that the supply provisions will remain in force until they are amended by the simplified procedure in Article 76 Euratom or by the ordinary revision procedure in Article 48 TEU. As we have seen so far in this chapter, changes and adjustments are instead made in secondary legislation.

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[80] For a commentary on this case, see Peter N. Brush, 'Permanence of Powers: Commission of the European Communities v. France' (1973–74) *California Western International Law Journal* 43–60. See also Trevor C. Hartley, *The Foundation of European Union Law* (Oxford: Oxford University Press, 2014), p. 324.
[81] Case 7/71, *Commission* v. *France*, para 18.
[82] Ibid., paras 19–20.
[83] Ibid., paras 23–4.

3.2 Ownership

We shall now briefly examine what have been characterised as the 'most unique' and 'mysterious features' of the Euratom Treaty[84]: the 'ownership' provisions (Title II, Chapter 8, Articles 86–91). These provisions implement the task enlisted in Article 2(f), which states that the Euratom shall 'exercise the right of ownership conferred upon it with respect to special fissile materials'. What does this ownership entail and what is the rationale behind these provisions?

Article 86 Euratom states that 'special fissile materials shall be the property of the Community'. Two things should be noted here. First, this is an ownership limited to certain types of material. Euratom is only the owner to so-called 'special fissile materials'.[85] Second, the provisions only apply to materials that are produced or imported in the Community *and* are subject to the safeguards. This means that Euratom ownership does not cover materials that are intended for defence purposes; such materials are exempted from safeguards (Article 84.3 Euratom).[86]

Moreover, the practical implications of this ownership are very limited; the 'unlimited right of use and consumption' remain with the 'Member States, persons and undertakings'. Article 87 Euratom reads:

> Member States, persons or undertakings shall have the unlimited right of use and consumption of special fissile materials which have properly come into their possession, subject to the obligations imposed on them by this Treaty, in particular those relating to safeguards, the right of option conferred on the Agency and health and safety.

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[84] Bouquet, 'How Current are Euratom Provisions on Nuclear Supply and Ownership in View of the European Union's Enlargement?', 27.

[85] Article 197 Euratom defines 'special fissile materials' as a matter of 'enriched uranium' and 'plutonium' (cf. Chapter 6 on 'Supplies', which has a wider scope: it applies to 'ores, source materials and special fissile materials'). Thus, 'ores' and 'source materials' (i.e., natural uranium, depleted uranium, and thorium) fall outside Community ownership. Article 197.1 reads: 'Special fissile materials' means plutonium 239; uranium 233; uranium enriched in uranium 235 or uranium 233; and any substance containing one or more of the foregoing isotopes and such other fissile materials as may be specified by the Council, acting by a qualified majority on a proposal from the Commission; the expression 'special fissile materials' does not, however, include source materials'.

[86] For a discussion on the Euratom safeguards system, see Chapter 6, 'Non-Proliferation'. Note also that Article 91 Euratom clarifies that the system of ownership, which is not vested in the Community, shall be determined by each Member State.

It is clear that this is not a question of an ownership in any traditional sense.[87] Scholars who have studied the Euratom negotiation history explain that the provisions were adopted under American diplomatic influence.[88] In the 1950s, Euratom ownership was a precondition for supply of nuclear material from the United States, which at that time was the world's main supplier. The United States would only export nuclear materials to the Community if it were the Community, and not the Member States, that had the ultimate control over 'special fissile materials'. The reason was that 'special fissile materials' could be used for military purposes (i.e., for the production of nuclear weapons). The Euratom ownership is thus a public ownership as a means of control.[89] It should also be noted that the Euratom construction of ownership was the result of a compromise between the French and German position during the Treaty negotiations. While France wanted Euratom to have full title to all nuclear materials, Germany wanted private ownership and free market principles to prevail.[90]

The control through the ownership is exercised by the means of the supply provisions and safeguards provisions. In *Ruling* 1/78, the Court makes explicit the link between these rules:

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[87] Böhm points out that this 'does not fit in with the traditional civil-law concept of property as having both a legal and an economic content'. Peter Böhm, 'Ownership of Nuclear Materials in Euratom' (1962) 11 *The American Journal of Comparative Law* 167–83. For an overview, see Georges Vedel, 'Le "régime de propriété" dans le traité d'Euratom' (1957) 3 *Annuaire français de droit international*, 586–96.

[88] Ibid. See also Grégoire Mallard, *Fallout: Nuclear Diplomacy in an Age of Global Fracture* (Chicago: University of Chicago Press, 2014); Grégoire Mallard, 'Crafting the Nuclear Regime Complex (1950–1975): Dynamics of Harmonization of Opaque Treaty Rules' (2014) 25 *European Journal of International Law*; and Gunnar Skogmar, *The United States and the Nuclear Dimension of European Integration* (New York: Palgrave, 2004).

[89] The Euratom provisions were to some extent based on the US Atomic Energy Act of 1954, which provided that special fissile material was the property of the Federal Government (Section 52, U.S. Atomic Energy Act of 1954). The American provisions were based on the premise that danger and misuse can only be avoided if the Federal Government is the owner of the material. Böhm suggests that an additional 'reason for choosing this solution seems to be that the American Federal Government is to be at all times in a position to have the necessary supplies of nuclear materials for military use'. Böhm, 'Ownership of Nuclear Materials in Euratom', 169. The Private Ownership of Special Nuclear Materials Act later repealed the American state monopoly. Curiously, the Euratom provisions on ownership remained. See Julien R. Goens, 'The Opportunities and Limits of European Co-operation in the Area of Non-Proliferation', in Harald Müller (ed.), *A European Non-Proliferation Policy: Prospects and Problems* (Oxford: Oxford University Press, 1987), pp. 31–70.

[90] See Böhm, 167. See also *Ruling* 1/78, para 25.

The system of property ownership by the Treaty signifies that, whatever the use to which nuclear materials are put, the Community remains the exclusive holder of the rights which form the essential content of the right of property. Thus, […] the Community retains the right to dispose of special fissile materials; that concept is the basis of the supply arrangements […]. In contrast to the right of use and consumption which, for the purposes of economic exploitation, is divided between many different holders, the right of ownership of fissile materials was concentrated by the Treaty in the hands of a common public authority, namely the Community; therefore, it is the Community, and the Community alone, which is in a position to ensure that in the management of nuclear materials the general needs of the public are safeguarded in its own field. Moreover Article 87 expressly recognizes this state of affairs by making an express reservation as regards users – Member States, persons and undertakings – in respect of compliance with the obligations under the Treaty including all matters regarding the rights of the Supply Agency and Safeguards'. [...] [W]hen a new requirement of general interest appears it is primarily for the owner of the nuclear materials, that is to say the Community, to meet it. The conferment of ownership of fissile materials on the Community, by Article 86, has the purpose inter alia, of preventing the creation of a legal vacuum in the face of such needs. Therefore it is the Community which, by virtue of its right of ownership, holds the power to deal with unforeseen situations in a coherent manner.[91]

Thus, Euratom 'ownership' seems to consist of a right of control, in particular with regard to supply and safeguards.[92] It is, however, hard to see why ownership is necessary. It is plain that a right of control can be exercised in the absence of Euratom ownership. The ownership provisions can therefore, at best, be regarded as ambiguous. It should also be noted that they provide for an autonomous simplified treaty revision procedure (Article 90 Euratom), similar to the one under the supply provisions.[93] But despite the fact that the practical relevance of the ownership provisions is minimal (if not non-existent),[94] a treaty revision has never been achieved.

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[91] *Ruling* 1/78, paras 27–8.

[92] Note the difference between ownership under the ownership provisions (Articles 85–91 Euratom) and the right of option in the supply provisions (Articles 52–76 Euratom). The Euratom's right of option applies to full ownership rights, as opposed to ownership under the ownership provisions. Ownership under the ownership provisions does not contain a right of use and consumption for the Community.

[93] Article 90 applies '[w]here new circumstances so require'. It can be applied to 'adjust' the ownership provisions.

[94] There are also provisions that have never been applied: Agency shall keep a 'Special Fissile Materials Financial Account' (Articles 88–9), but such an account has never been set up. See European Parliament, Directorate-General for Research, 'The European Parliament and the Euratom Treaty: Past, Present and Future', Working Paper, Energy and Research Series, 2-2002, which refers to the response to a Parliamentary oral question ('Question No. 59, by Mr Ford (H-118/88)', Debates of the European Parliament, No. 2-367 (sitting of 6 July 1998) pp. 219–20).

We shall now examine some provisions that are more clearly aimed to promote the nuclear industry: the provisions on nuclear investment.

3.3 Investment

Article 2c provides that the Euratom shall 'facilitate investment and ensure, particularly by encouraging ventures on the part of undertakings, the establishment of the basic installations necessary for the development of nuclear energy in the Community'. This task is detailed in Title II, Chapter 4 on 'Investment' (Article 40 to 44). We shall briefly examine these provisions and see that the Euratom's competence is rather limited in this area. The Commission may simply collect and analyse information. As Polach rightly points out, '[t]he role of Euratom is similar here to an agency collecting and analysing investment information, but having very little formal authority over the execution of investment'.[95] In Chapter 5 of this dissertation ('Nuclear Safety'), the financing of investment by Euratom loans will be discussed. Such loans are today directed towards the financing of projects to improve nuclear safety. For that reason, we will not deal with them here.

After having discussed the provisions and how they are applied, we shall closely examine Case C-490/10, *European Parliament* v. *Council,*[96] where the Court addressed for the first time the relationship between Article 194 TFEU (inserted by the Lisbon Treaty) and the Euratom Treaty.

3.3.1 The Investment Provisions and Illustrative Programmes

The Member States are obliged to communicate their investment projects to the Commission (Article 41). The material scope is limited in the sense that only industrial activities enumerated in the Treaty's Annex II are concerned.[97] The

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The Commission replied that 'The absence of the special fissile materials financial account has not caused any practical difficulties and no Member State has asked for this account to be drawn up. The Safeguards Directorate in Luxembourg does, of course, keep a complete account, from the data it has, of all the special fissile materials present in the Community at any time'.

[95] Polach, *EURATOM*, p. 85.

[96] Case C-490/10, *European Parliament* v. *Council* EU:C:2012:525.

[97] This list may be altered by the Council.

communication is further limited to investments relating to 'new installations' and 'replacements or conversions' (Article 41).

The Commission shall discuss with persons or undertakings all aspects of projects that relate to the objectives of the Treaty. The Commission shall communicate its views to the Member State concerned (Article 43). The Commission may publish any communicated projects, but only with the consent of the Member States, persons and undertakings concerned (Article 44).

Further, the Commission is to periodically publish 'Illustrative Programmes', indicating the Community's production target and the types of investment required for their attainment (Article 40). The purpose is 'to stimulate action by persons and undertakings and to facilitate coordinated development of their investment in the nuclear field'. These programmes do not set up any obligations, they are just about giving 'nuclear advice'. In the Euratom's early years, they were believed to carry much weight.[98] Since 1958, the Commission has published five Illustrative Programmes.[99] The most recent one is from 2006. Unlike the previous programmes, it discusses the nuclear option in the context of the wider EU energy policy debate.

Programmes on investment in nuclear energy can also be drawn up under the TFEU. In 2008, the Commission asked the European Economic and Social Committee to draw up an explanatory Opinion on 'Future Investments in the Nuclear Industry and the Role of Such Investments in EU Energy Policy'.[100] This

[98] The Commission's opinion on similar programmes drawn up under the ECSC was a decisive factor when enterprises sought to obtain bank loans. See Political And Economic Planning Think Tank, *European Organisations* (London: George Allen and Unwin, 1959), p. 98.
[99] Programmes have been published in 1966, 1972 (*Second illustrative nuclear programme for the Community. XVII/341/2/71-E, 1 July 1972)*, 1984 (COM(1984)653 final, update by COM(1989) 347 final), and 1997 (COM(1997) 401 final), and 2006 (COM(2006) 844 final).
[100] Opinion of the European Economic and Social Committee on Future investments in the nuclear industry and the role of such investments in EU energy policy, OJ 2009 No. C175, 28 July 2009, p. 1. Note also that the Commission must receive an Opinion from the European Economic and Social Committee when adopting a Nuclear Illustrative Programme. See for example, Opinion of the European Economic and Social Committee on the Communication from the Commission to the Council and the European Parliament — Nuclear Illustrative Programme, presented under Article 40 of the Euratom Treaty for the opinion of the European Economic and Social Committee COM(2006) 844 final, OJ 2007 No. C256, 27 October 2007, p. 51.

Opinion was based on Article 262 EC (now Article 304 TFEU), although the Euratom Treaty contained an almost identical provision.[101]

3.3.2 The Notification Procedure

In 1958, the Euratom adopted two Regulations in order to implement the investment provisions: one Council Regulation and one Commission Regulation.[102] The Council Regulation included a list of the industrial sectors concerned and it prescribed that listed sectors had to be declared if their size was above a certain ceiling. The Commission Regulation determined procedures for effecting the communications. There was some controversy regarding the existence of a legal basis for the Commission Regulation, but this never reached the Court. Some commentators pointed out that this was probably wise, 'given the early stage of Community development'.[103] Many years later, however, the question of legal basis would resurface.

In Case T-240/04, *French Republic* v. *Commission*,[104] France challenged the Commission Regulation, which had been amended in 2003.[105] France claimed that neither Articles 41 to 44 Euratom, nor the Council Regulation constituted a

[101] Article 170 Euratom, which was repealed by the Lisbon Treaty.
[102] Euratom Council Regulation No 4 defining the investment projects to be communicated to the Commission in accordance with Article 41 of the Treaty establishing the European Atomic Energy Community, OJ 1958 No. 17, 6 October 1958, p. 417; and Commission Regulation No 1 determining procedures for effecting the communications prescribed under Article 41 of the Treaty, OJ 1958 No. 25, 27 November 1958, p. 511.
[103] See Delbert D. Smith, 'The European Atomic Energy Community' (1970) 1 *California Western International Law Journal*, 33–59, at 40–1.
[104] Case T-240/04, *French Republic* v. *Commission* [2007] ECR II-4035.
[105] In 1999, a revision of the Council Regulation was made for the first time. Council Regulation (Euratom) No 2587/1999 of 2 December 1999 defining the investment projects to be communicated to the Commission in accordance with Article 41 of the Treaty establishing the European Atomic Energy Community, OJ 1999 No. L315, 9 December 1999, p. 1. The purpose was to revise the ceilings; clarify the scope of certain listed industrial sectors; and to allow the Commission to publish its opinions of general nature. See Proposal for a Council Regulation (Euratom) defining the investment projects to be communicated to the Commission in accordance with Article 41 of the Treaty establishing the European Atomic Energy Community, COM(1998) 804 final. A revision of the Commission Regulation was also made. See Commission Regulation (EC) No 1209/2000 of 8 June 2000 determining procedures for effecting the communications prescribed under Article 41 of the Treaty establishing the European Atomic Energy Community OJ 2000 No. L138, 9 June 2000, p. 12. In 2003, the Commission Regulation was amended again. The amended Commission Regulation formalised the Commission's practices when examining investment projects. This was the Regulation challenged by France. See Commission Regulation (Euratom) No 1352/2003 of 23 July 2003 amending Regulation (EC) No 1209/2000 determining procedures for effecting the communications prescribed under Article 41 of the Treaty establishing the European Atomic Energy Community, OJ 2003 No. L192, 31 July 2003, p. 15.

correct legal basis.[106] The Commission argued that although the Euratom Treaty did not detail the precise procedures, Articles 41 to 44 gave it competence to deal directly with undertakings. The Commission further contended that it was within its duty of internal organisation to take measures to organise the examination procedure for investments projects.[107]

The CFI first pointed out that the Commission did not have an explicit power to adopt the Commission Regulation.[108] The CFI then examined the existence of an implied power. It explained that as the existence of an implicit regulatory power constituted a derogation from the principle of allocation of powers, a strict interpretation had to be made[109]: The Commission Regulation had to be 'necessary' to ensure the practical effect.

The CFI first examined whether the Commission Regulation was necessary to ensure the practical effect of the Council Regulation. It found that the Council Regulation was limited to defining investment projects that had to be communicated to the Commission and that it did not concern 'the process of discussion with the Commission'. Therefore, the CFI concluded, the Commission Regulation was not necessary to ensure the practical effect of the Council Regulation.

The CFI then examined whether the Commission Regulation could be considered as 'necessary' to give practical effect to Articles 41 to 44. The Court found that the Regulation had introduced a provision on publishing the communicated projects. It held that that provision 'cannot be considered as necessary for the proper implementation of Article 44 [Euratom], which already provides for such a possibility itself, without making it obligatory'.[110] The CFI concluded that an implicit power neither followed from the Treaty articles, nor from the Council

[106] Case T-240/04, *French Republic* v. *Commission*, para 21.
[107] The Commission also argued that the Regulation imposed obligations only on the Commission and not on third parties and that this was not a Regulation within the meaning of Article 161, but a regulation *sui generis*. See ibid., para 28).
[108] The CFI held that an explicit power could neither be found in the Treaty articles, nor in the Council Regulation. See ibid., para 32.
[109] A version of the principle of conferral was expressed in Article 3(1) Euratom ('Each institution shall act within the limits of the powers conferred upon it by this Treaty'). It is now repealed and replaced by a reference in Article 106.a.1 Euratom.
[110] Case T-240/04, *French Republic* v. *Commission*, para 41.

Regulation.[111] The CFI decided to annul the Commission Regulation on the ground of lack of competence.[112]

In addition to the Notification Regulations just discussed, we should also mention the Notification Council Regulation adopted in 1972 under the EEC Treaty.[113] The preamble underlined that 'the introduction of a common energy policy is one of the objectives of the Communities', and also that 'obtaining an overall picture of the development of investments in the Community is one feature of such a policy'. It also stated: 'with regard to coal and atomic energy, undertakings are under an obligation, pursuant to the [ECSC Treaty and the Euratom Treaty] to notify their investment projects' and that it was 'desirable to supplement such information with particulars relating to petroleum, natural gas and electricity'. Thus, the EEC Regulation was a 'supplement' to the reporting requirements in the ECSC Treaty and the Euratom Treaty.

When this EEC Regulation was amended in 1976,[114] Article 187 Euratom had been added as a legal basis. The reason was that the reporting requirements under Articles 41 and 42 Euratom only provides that the Commission must receive notification of nuclear investment projects '*before* the first contracts are

[111] The CFI also examined whether the form and binding nature of the Regulation fulfilled the condition of necessity (ibid., para 38). It found that the adoption of measures detailing the Commission's examination procedure did not have to be carried out in the form of a Regulation, but that simple internal rules would suffice (ibid., para 42). The CFI also rejected the Commission's argument that the Regulation was a regulation *sui generis*, in that it imposed obligations only on the Commission. The CFI stated that the adoption of the provisions in the form of a regulation could not be held to be necessary for their proper implementation, because 'the form of a regulation suggests the presence of legal effects for third parties and it would be contrary to the principle of legal certainty if operators had to carry out a detailed analysis of the wording of the provisions at issue to be able to determine their actual scope' (ibid., para 44). It further held: 'By choosing a regulation – when no provision of Community law expressly gave it competence to do so – to adopt organising measures for the examination procedure of nuclear investment projects, which did not require the use of a legislative provision which is binding in its entirety and directly applicable in all Member States, the Commission infringed the rules on competence in the EAEC Treaty, creating a risk of confusion damaging to legal certainty as regards the legal scope of that act for third parties' (ibid., para 47).

[112] Ibid., para 54. The Commission Regulation has not been replaced.

[113] Regulation (EEC) No 1056/72 of the Council of 18 May 1972 on notifying the Commission of investment projects of interest to the Community in the petroleum, natural gas and electricity sectors OJ 1972 No. L120, 25 May 1972, p. 7, English special edition: Series I Volume 1972(II) p. 466.

[114] Council Regulation (EEC) No 1215/76 of 4 May 1976 amending Regulation (EEC) No 1056/72 on notifying the Commission of investment projects of interest to the Community in the petroleum, natural gas and electricity sectors, OJ 1976 No. L140, 28 May 1976, p. 1.

concluded with the suppliers' or '*before* the work begins'.[115] The preamble of the amended Regulation explained: 'this means that notification of projects is given when they are at a very advanced stage and then only at the initiative of and on the date chosen by the person or undertaking making the investment'. Thus, due to this limitation, a more regular way of reporting had to be adopted. Article 187 Euratom was chosen as it allows the Commission to collect any information (under the conditions set by the Council). The preamble also underlined that the establishment of a common energy policy was one the objectives of the Community. If it were to be achieved, 'greater use must be made of the Community's industrial potential, particularly in the nuclear sector'. The preamble further stated that 'in order to assist manufacturing industry in undertaking the investment and adjustments necessary for the supply of heavy plant under the investment programmes relating to electric power supplies, the Commission must be informed of the projects involved in these programmes sufficiently *far in advance* of their implementation to be able to provide industry with information'.[116]

A new Notification Council Regulation was adopted in 2010.[117] The title indicates that the scope is broader than the previous Regulation. While the previous title referred to 'investment projects of interest to the Community in the petroleum, natural gas and electricity sectors', the new Regulation refers to 'investment projects in energy infrastructure within the European Union'. The preamble still points out that it 'supplements' the information gathered under the Euratom Treaty.[118]

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[115] See the Preamble of ibid.
[116] Emphasis added.
[117] Council Regulation (EU, Euratom) No 617/2010 of 24 June 2010 concerning the notification to the Commission of investment projects in energy infrastructure within the European Union and repealing Regulation (EC) No 736/96, OJ 2010 No. L180, 15 July 2010, p. 7. In 1996, the Regulation had already been replaced. No substantial changes were made regarding the references to nuclear energy. Council Regulation (EC) No 736/96 of 22 April 1996 on notifying the Commission of investment projects of interest to the Community in the petroleum, natural gas and electricity sectors, OJ 1996 No. L102, 25 April 1996, p. 1.
[118] Recital 7 of its preamble reads: 'Pursuant to Articles 41 and 42 of the Euratom Treaty, undertakings are under an obligation to notify their investment projects. It is necessary to supplement such information with, in particular, a regular reporting on the implementation of

3.3.3. Case C-490/10 and Article 194 TFEU

The discussion above has provided the background to Case C-490/10, *European Parliament* v. *Council*,[119] where the Court addressed for the first time the relationship between Article 194 TFEU and the Euratom Treaty. The facts are briefly the following: a few months before the Lisbon Treaty came into force, the Commission submitted a proposal to replace the Council Regulation from 1996 on notifying the Commission of investment projects of interest to the Community in the petroleum, natural gas and electricity sectors (see the discussion above).[120] The proposal was based on the identical provisions Article 284 EC (now 337 TFEU) and Article 187 Euratom,[121] which read:

> The Commission may, within the limits and under the conditions laid down by the Council in accordance with the provisions of this Treaty, collect any information and carry out any checks required for the performance of the tasks entrusted to it.

Before the Council had taken a decision on the proposal, the Lisbon Treaty had come into force. This made it necessary to adjust the proposal. The Commission stated that it was merely necessary to renumber the legal basis. Consequently, instead of Article 284 EC, the proposal referred to Article 337 TFEU. As the Lisbon Treaty did not renumber the Euratom Treaty, Article 187 Euratom remained the same. In 2010, the Council adopted the Regulation on the basis of the Commission's proposal.[122]

The European Parliament brought an action to the ECJ for annulment of the Regulation. The Parliament claimed that the Regulation was not based on the

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investment projects. Such additional reporting is without prejudice to Articles 41 to 44 of the Euratom Treaty'.

[119] Case C-490/10, *European Parliament* v. *Council* EU:C:2012:525.

[120] Council Regulation (EC) No 736/96 of 22 April 1996 on notifying the Commission of investment projects of interest to the Community in the petroleum, natural gas and electricity sectors, OJ 1996 No. L102, 25 April 1996, p. 1.

[121] Neither Article 284 EC nor Article 187 Euratom specified how the Council would take the decision. Consequently, the 'default procedure' would apply. Prior to the Lisbon Treaty, this meant that the Council took decision by simple majority (Article 205 EC and Article 118 Euratom). The Lisbon Treaty amended the 'default procedure'. The Council shall now take decision by qualified majority by default (Article 16.3 TFEU). As a change was not intended in this area, Article 337 TFEU (ex Article 284 EC) now specifies that the Council shall take the decision by 'simple majority'. However, a similar change was not made for Article 187 Euratom. As a result, after Lisbon, the Council decides by qualified majority instead of simple majority (which was previously the case). This change was probably unintentional.

[122] Council Regulation (EU, Euratom) No 617/2010 of 24 June 2010 concerning the notification to the Commission of investment projects in energy infrastructure within the European Union and repealing Regulation (EC) No 736/96, OJ 2010 No. L180, 15 July 2010, p. 7.

correct legal basis and that it should have been adopted solely on the basis of Article 194 TFEU (introduced by the Lisbon Treaty). The Parliament has no formal role in the legislative procedures in Article 337 TFEU and Article 187 Euratom,[123] whilst under Article 194 TFEU, the ordinary legislative procedure applies; the Parliament acts as co-legislator.[124]

The Council, which was supported by the Commission and France, maintained that it was correct in choosing Article 337 TFEU and Article 187 Euratom. The Council argued that these provisions confer on the Commission the power to collect any necessary information for the performance of the tasks entrusted to it. Albeit in the context of investment in energy infrastructure, including nuclear energy, the sole activity involved was that of collecting information.

3.3.3.1 The AG's Opinion

In his opinion, AG Mengozzi[125] first considered the relationship between Articles 194 TFEU and 337 TFEU. The AG found that both these provisions are general in nature: 'It is not possible to resolve this conflict by applying the traditional criterion for resolving contradictions between laws, according to which the special provision derogates from the general provision' (i.e., the *lex specialis* principle). According to the AG, that principle is only applicable in the case of provisions which govern the same subject-matter, 'which differ from each other in that the special provision makes part of the subject-area governed by the general provision subject to different rules'.[126] Thus, in the view of the AG, it was not possible to single out one that is special vis-à-vis the other.

The AG then stated that it was necessary to identify the correct legal basis, taking into account the objective factors that are amenable to judicial review, in particular the aim and content of the measure.[127] He pointed out that Article 337

[123] In adopting the Regulation, the Council had yet decided to consult the Parliament. See arguments of the parties in Case C-490/10, *European Parliament* v. *Council*, paras 23–43.
[124] The Parliament did not disagree with the aim of the Regulation or with the means envisaged; the European Parliament made clear that if the Court would annul the Regulation, the Parliament would have no objection to it maintaining the effects thereof.
[125] Case C-490/10, *European Parliament* v. *Council*, Opinion of AG Mengozzi.
[126] Opinion of AG Mengozzi, paras 35–9.
[127] Ibid., para 40.

TFEU refers to the Commission's general activity of collecting information for the performance of the tasks entrusted to it. In contrast to Article 194, it does not require that any measures, which may be adopted by the Council, are *necessary* for the purpose of achieving the objectives of a given EU policy. If the Regulation were regarded as a measure necessary to achieve the objectives of Article 194 TFEU, then it would fall within the scope of that article.[128] When assessing the Regulation's content, the AG found that it was not related to the general activity of simply collecting information; rather, it was 'necessary for the attainment of the objectives of the European Union's energy policy'.[129] An analysis of the preamble confirmed that this was also the Regulation's aim. In the light of both the content and the purpose, the Regulation constituted a measure necessary for the attainment of the objectives of the EU's energy policy, as defined in Article 194 TFEU.[130]

The AG then considered the relationship between Article 194 TFEU and the Euratom Treaty. He first noted that Article 194.2 TFEU states that it is '[w]ithout prejudice to the application of other provisions of the Treaties'. The AG pointed out that the Euratom Treaty 'contains a number of special provisions on energy which are covered by the clause preserving the application of other Treaty provisions in Article 194(2) TFEU and which, consequently, derogate from that provision only in so far as concerns the nuclear sector'.[131] The AG then pointed out that Articles 40 to 44 Euratom govern the communication of investment projects and that the purpose is to stimulate action by persons and undertakings and to facilitate coordinated development in the nuclear field. The AG explained

[128] Ibid., para 44–5.
[129] Ibid., paras 60 and 69.
[130] The AG also pointed out that if the Council's argument were accepted, the role of the Parliament in the European Union's legislative process would be curtailed, and that this would be at odds with the importance attached to its participation by the Court's case law. The AG also held that the 'no account would be taken of the most recent developments in the European Union whereby the Treaty of Lisbon identified as the ordinary legislative procedure the procedure under Article 194(2) TFEU, which provides that the Parliament is to have the right to participate fully in the legislative process, and definitively limited those cases (as in Article 337 TFEU) in which the Council adopts regulations acting by a simple majority' (para 83). The AG held that Article 337 TFEU can continue to be applied, 'except in those cases expressly governed by provisions which, as in this case, provide that the ordinary legislative procedure is to be used or, in any event, special procedures, but it cannot be used for the adoption of measures in a sector which is fully and generally governed by Treaty provisions that derogate from the procedure laid down in Article 337 TFEU' (para 88).
[131] Ibid., para 99.

that these provisions were of a 'special nature' in relation to Article 194 TFEU; they might constitute the correct legal basis.[132]

The AG then examined the question of whether Article 187 Euratom could be cited as a supplementary legal basis.[133] The AG did not accept the argument that Article 187 is the general provision on which any activity by the Commission involving the collection of information for the purpose of achieving the objectives set in the Euratom Treaty should be based.[134] In the AG's view, Article 187 Euratom is necessarily linked to Treaty provisions that entrust specific tasks to the Commission.[135] It could only be used in place of Article 194 TFEU if it could be 'linked to provisions of the Euratom Treaty which derogate from Article 194 TFEU'.[136] The AG then stated that 'since Article 187 [Euratom] does not constitute a special provision in relation to Article 194 TFEU, it is not possible to derogate directly from the latter provision'.[137] He also explained that the Regulation's requirement to notify the information is *broader in scope* than that under Articles 40 to 44 Euratom because it is 'addressed to the Member States […], is ongoing in nature and, relates to aggregated data, not individual projects'.[138] Article 194 TFEU was therefore the appropriate legal basis.

The AG also discussed the possible use of a joint legal basis. He found that even if it were accepted that the Regulation had a dual component, the part of the Regulation that may have Articles 40 to 44 Euratom as its legal basis was not the main or predominant component in relation to the part that could be linked to Article 194 TFEU.[139] He explained that in light of the Court's case law, the Regulation must be based on Article 194 TFEU, which is the legal basis required by its purpose or its main or predominant component. The AG also discussed whether Article 194 TFEU and Article 187 Euratom could be used as a joint legal

[132] Ibid., para 102. The AG also pointed out that the Commission is periodically to publish illustrative programmes indicating nuclear energy production targets and all the types of investment required for their attainment.
[133] The Council acts by qualified majority both under Article 41 Euratom and Article 187 Euratom, so adding Article 187 Euratom would not give rise to procedural problems.
[134] Ibid., para 104.
[135] Ibid., para 107.
[136] Ibid., para 108.
[137] Ibid., para 109.
[138] Ibid., para 110.
[139] Ibid., para 112.

basis. He explained that if it were not possible to isolate the predominant component or purpose, the procedure under Article 194 TFEU had to be followed, given that Article 187 Euratom makes no provision for the Parliament's participation.[140]

The AG suggested that 'the Council was not empowered to adopt the Regulation using Article 337 TFEU and Article 187 Euratom, in place of Article 194 TFEU, and without complying with the procedure laid down in Article 194 TFEU'.[141]

3.3.3.2 Findings of the Court

The Court first examined the Regulation's content, and found that it relates closely to the EU's energy policy.[142] The Court pointed out that the Regulation implements a system for the collection of information relating to investment projects in energy infrastructure designed to allow the EU to achieve the objectives laid down in the energy sector, 'in particular as regards the functioning of the internal energy market, the security of the European Union's energy supply and the development of new and renewable energies'.[143]

The Court then had to determine whether the Regulation were to be properly based on Article 337 TFEU or Article 194 TFEU.[144] It held that Article 337 TFEU gives the Commission a *general competence* to collect *any* information needed for the achievement of the tasks that have been entrusted to it by the TFEU. But the Regulation did not require that such collection be necessary for the purpose of achieving the objectives of a given EU policy.[145] The Court then held that it is clear from the wording that Article 194 constitutes the legal basis for EU acts that are 'necessary' to achieve the energy objectives.[146]

The Court stated that Article 194 TFEU is applied '[w]ithout prejudice to the application of other provisions of the Treaties', and that this formulation covers

[140] Ibid., para 116.
[141] Ibid., para 117.
[142] Case C-490/10, *European Parliament* v. *Council*, paras 53–61.
[143] Ibid., para 61.
[144] Ibid., para 62–79.
[145] Ibid., para 62–4.
[146] Ibid., para 66.

Articles 122 and 170 TFEU (which concern severe difficulties arising in the supply of energy products and trans-European networks respectively) as well as other provisions, even if the measures adopted also pursue one of the objectives enumerated in Article 194 TFEU.[147]

The Court then examined whether the Regulation as regards its aim and content was to be considered 'necessary' to achieve the objectives assigned to the energy policy by Article 194 TFEU. If that was the case, the collection of information was to be regarded as a component of that policy, and the Regulation must be based on Article 194 TFEU. An act could not come under Article 337 TFEU only because it adopts a system of collection of information.[148] The Court held that the Regulation's aim and content relate closely to the objectives of the EU's energy policy in Article 194 TFEU.[149]

The Court rejected the argument that the Regulation only has an 'indirect and incidental impact' on the EU's energy policy.[150] It explained that the system of collection of information apply to specific data and information relating to the EU's energy infrastructure, which would 'enable the Commission to identify potential gaps between the demand and supply of energy products in the European Union'.[151] It was a prerequisite to the adoption of appropriate measures 'to ensure the functioning of the internal energy market, the security of supply of energy products, the promotion of energy efficiency and the development of new and renewable forms of energy'.[152] The collection of information was therefore contributing '*directly* to the achievement of the objectives of the European Union policy on energy, as defined in Article 194(1) TFEU'.

The Court concluded that the Regulation is a *necessary* instrument for the achievement of the objectives within the meaning of Article 194 TFEU.[153] The collection of information was intended to allow the Commission to achieve the

[147] Ibid., para 67.
[148] Ibid., para 68.
[149] Ibid., para 69.
[150] Ibid., para 70.
[151] Ibid., para 71.
[152] Ibid., para 72.
[153] Ibid., paras 74 and 79.

specific objectives of the EU policy on energy set out in Article 194 TFEU. It followed that the collection and the objective pursued by the Regulation were 'intrinsically and indissociably linked'.[154]

The Court clarified that Article 337 TFEU can be applied in cases where the measure cannot be considered 'necessary' for the achievement of the specific objectives stated in Article 194 TFEU.

> [I]t does not result from the foregoing analysis that Article 337 TFEU ceases, in all circumstances, to be a valid legal basis for European Union acts having the aim of implementing a system for the collection of information in the context of a sectoral policy of the European Union, rendering that provision meaningless.[155]

The Court also discussed whether recourse to Article 187 Euratom as an additional basis was required.[156] It pointed out that Article 187 is found under the Title entitled 'General provisions', and that the Council acts by a qualified majority,[157] without the consultation with the Parliament under that article. In light of the fact that Article 187 Euratom and Article 337 TFEU have a similar wording as regards their material scope, the Court considered Article 187 Euratom to be a 'general legal basis for the acts concerning the general activity of collecting information carried out by the Commission for the purpose of completing the tasks entrusted to it by the [Euratom] Treaty'.[158] The Court here referred to its reasoning on Article 337 TFEU.[159]

The Court then pointed out that it was apparent that the Regulation covers the notification to the Commission of investment projects in certain nuclear infrastructures,[160] but that, as regards the 'aim and content', it concerned the implementation of the EU policy 'on energy in general' – and not in the 'specific sector of nuclear energy as defined by the [Euratom] Treaty'.[161] The Court held:

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[154] Ibid., para 76.
[155] Ibid., para 77.
[156] Ibid., paras 80–7.
[157] Article 106a(1) Euratom and Article 16(3) TEU.
[158] Case C-490/10, *European Parliament* v. *Council*, para 81.
[159] The reasons were set out in ibid, paras 62–4.
[160] This is apparent from Article 1 of the contested Regulation, read in conjunction with point 3.1 of the Annex.
[161] Case C-490/10, *European Parliament* v. *Council*, para 82.

The information relating to the nuclear infrastructure is thus *only a component* of all the relevant information concerning the energy system of the European Union as a whole which the Commission must possess in order, pursuant to recital 8 in the preamble to the contested regulation, to carry out an overall assessment of energy demand and supply with the aim, inter alia, of guaranteeing security of energy supply in the European Union.[162]

The Court also explained that Articles 40 to 44 Euratom did not apply because the Regulation 'does not fall *within the scope of the objective of promoting or coordinating investments in the nuclear field* provided for in Articles 40 EA to 44'.[163] The Court held that while the Regulation concerns the notification by all Member States of the aggregated data and information relating to all energy investment projects, Article 40 to 44 specifically relate to the communication by undertakings engaged in the nuclear sector of all individual investment projects in that field relating to new installations and also to all replacements or conversions of a certain size.

The Court decided that Article 187 Euratom was an incorrect legal basis, and that the Regulation should have been based solely on Article 194(2) TFEU.[164]

3.3.3.3 Comments on the Case

The core of the Court's reasoning lies in the wording of Article 194, that it 'shall establish the measures *necessary* to achieve the objectives in [Article 194(1)]'.[165] The Regulation constitutes a 'necessary means' for the achievement of the objectives set out in Article 194 TFEU. As for Article 337 TFEU, the Court clarifies that it has not ceased to be a valid legal basis for acts having the aim of implementing a system for the collection of information in the context of a sectoral policy; it applies if a regulation cannot be considered to be *necessary* for the achievement of the specific objectives stated in Article 194 TFEU. The Court applies this reasoning also for Article 187 Euratom; it is a general provision in the same way, and for the same reasons, as Article 337 TFEU.

[162] Ibid., para 83, emphasis added.
[163] Ibid., para 84.
[164] Ibid., para 86.
[165] Emphasis added.

The basis of the Court's reasoning in terms of the relationship between Article 187 Euratom and Article 194 TFEU is that the information on nuclear infrastructure is only a 'component' of all the relevant information concerning the energy system of the European Union as a whole. This opens up for a broad application of Article 194 TFEU: if nuclear energy is only a 'component' of a more general measure, Article 194 TFEU shall apply and not the Euratom Treaty. This reasoning limits not only the scope of Article 187 Euratom, but also the scope of the Euratom Treaty as a whole. It limits the situations where a joint legal basis is applied.

As the AG points out, there are obvious difficulties in applying the principle *lex specialis derivat lex generalis* in the choice between Article 337 TFEU and Article 194 TFEU. It was not possible to single out one that is special vis-à-vis the other. Both provisions are general, but in different ways. One the one hand, we have Article 337 TFEU, which gives the Court a specific competence to collect information, but it is not tied to any specific policy area. It provides the Commission with a 'procedural' competence to collect information. On the other hand, we have a 'sector specific provision', Article 194 TFEU, which is special in the sense that it provides competence in a specific policy field: energy. This provision is, however, broadly formulated, and it does not specify that the Commission may collect information. Which one should be applied – the 'procedure specific' or the 'sector specific'? According to the AG, the *lex specialis* principle is only applicable in the case of provisions that govern the same subject matter. The Court does not discuss this.

What about application of *lex specialis* in the relationship between Article 187 Euratom and Article 194 TFEU? The AG states that Article 187 Euratom does not constitute a special provision in relation to Article 194 TFEU, but he does not examine this question any further. The Court is silent in this regard. However, there is an important distinction to be made about the relationship between Article 337 TFEU and Article 194 TFEU on the one hand, and Article 187 Euratom and Article 194 TFEU on the other hand: 187 Euratom is itself placed in a sectoral Treaty. Therefore, unlike Article 337 TFEU, it is not without substantive content; it is not merely a 'procedural' or 'general' provision as

Article 337 TFEU. Rather, it is a specific provision which provides that the Commission may collect information in the field of the nuclear energy.

Perhaps even more surprisingly, neither the Court nor the AG discuss the 'non-derogation clause' in Article 106a.3 Euratom, which stipulates that the TEU and TFEU provisions 'shall not derogate' from the Euratom Treaty provisions.[166] What exactly is the point of this provision if, in this case, Article 194 TFEU is not regarded as 'derogating' from Article 187 Euratom? What would 'derogation' then look like? Further, in the relationship between the Euratom Treaty and Article 194 TFEU, there is 'protection' from two directions: Article 194 TFEU applies '[w]ithout prejudice to the application of other provisions of the Treaties', and Article 106.a3 Euratom states that the TEU and TFEU provisions 'shall not derogate' from the Euratom Treaty provisions. Apparently, these formulations are not sufficient. One could also wonder why only certain provisions – Articles 122 and 170 TFEU – would be covered by the protection in Article 194 TFEU (i.e., '[w]ithout prejudice to the application of other provisions of the Treaties')?

Hancher and Salerno discusses whether the introduction of a specific competence on energy will lead to a major change in the EU's energy policy, i.e., if it could be interpreted as conferring an enhanced competence.[167] They argue that the *political will* to use the new power is decisive. This case, however, shows that it is not only the political will, but also the Court that makes the decisive move. The effect of the introduction of Article 194 TFEU is not merely to enhance 'consistency and transparency in the EU's legislative procedure'[168]: the provision seems to have 'transferred' competence from the Euratom Treaty to the EU Treaties, i.e., what was previously a Euratom competence has now become a competence under the EU Treaties. The Member States had a choice to delete Article 187 Euratom by the Lisbon Treaty revision. Many other institutional provisions were deleted. But Article 187 was maintained. The reason was likely the existence of the 'notification Regulation', which was based on Article 187

[166] See Chapter 2, 'The Structural Relationship'.
[167] Leigh Hancher and Francesco Maria Salerno, 'Energy Policy after Lisbon', in Andrea Biondi, Piet Eeckhout, and Stefanie Ripley (eds.), *EU law after Lisbon* (Oxford: Oxford University Press, 2012), pp. 367–402.
[168] Cf. ibid., p. 402.

Euratom. The implication of this case is that the European Parliament has now increased its power when it comes to information in the nuclear sector.

3.4 Nuclear Research

In the 1950s, it was widely believed that only a joint effort in the area of nuclear research could lead to overall development. Nuclear research was too costly and complex to be left to the Member States alone. The expectations were high – probably too high. It was believed that the Euratom would become the 'cornerstone of a new technological revolution'.[169] However, even in the 1960s it was clear that the Euratom would turn into a 'simple research agency, to which Member States entrusted […] their most uncertain projects'.[170] Nevertheless, today, nuclear research is considered as one of the Euratom's most significant policy areas.

This section starts with an account of the Euratom's research provisions and their rationale. It then explains the interaction between Euratom competence and EU competence in this field. The EEC's role in science and technology did not take off until the 1970s, and it drew from the Euratom construction and experience. Over the years, the Euratom research has become increasingly integrated with the EU's 'general' research. There is now a considerable overlap between Euratom research and research under the EU Treaties. Does the nature of nuclear research demand a separate construction? Is there an added value in having separate provisions for nuclear research?

3.4.1 The Research Provisions

The Euratom shall 'promote research and ensure the dissemination of technical information' (Article 2.a). This task is specified in Title II, Chapter 1 on Promotion of Research (Articles 4 to 11). The scope is limited; the activities are

[169] In the 1950s, nuclear research was also important for symbolic reasons. As Guzzetti points out: 'the choice of nuclear physics as the priority area in which to concentrate European scientific research reflected the spirit of the times, which was profoundly influenced by the myth of the atom, the new symbol of progress, power and prestige'. Guzzetti, A Brief History of European Union Research Policy, p. 3.

[170] Lawrence Scheinman, 'Euratom: Nuclear Integration in Europe', p. 12; Luca Guzzetti, *A Brief History of European Union Research Policy* (Luxembourg: OOPEC, 1995), p. 11.

confined to the fields enlisted in Annex I.[171] The Council may amend the list, but this has never been done, probably because the listed fields are seen as sufficiently broad.[172] There is no equivalent to this list in the EU Treaties; the EU can carry out research in any area.

The Commission plays a central role in nuclear research. Many of the provisions are constructed in a way that gives the Commission a broad overview over the research activities in the Community. The Commission is responsible for promoting and facilitating nuclear research in the Member States by coordinating national research programmes (Article 4). It shall request the Member States, persons or undertakings to communicate their nuclear research programmes (Article 5), and it may deliver a reasoned opinion on the programmes. The Commission shall discourage unnecessary duplication, direct research towards sectors that are insufficiently explored, and publish a list of insufficiently explored sectors.[173] Further, the Commission may bring together experts for mutual consultation and exchanges of information. The Commission may also encourage the Member States' carrying out of their research programmes by providing financial assistance 'within the framework of research contracts, without, however, offering subsidies' (Article 6). It may also supply nuclear material, placing installations, equipment, or expert assistance at the disposal of Member States, and promote joint financing.

Furthermore, the Commission shall complement the Member States' research by carrying out a 'Community research and training programme' (Article 7). The programmes shall be drawn up for five-year periods. The very first Euratom research programme was launched in 1959. The details of this programme were provided for directly in the Treaty, in provisions relating to the initial period.[174]

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[171] Annex I, 'Fields of Research Concerning Nuclear Energy Referred to in Article 4 of this Treaty'. The annex includes the following sections: I Raw materials; II Physics applied to nuclear energy; III Physical chemistry of reactors; IV Processing of radioactive material; V Applications of radioisotopes; VI Study of the harmful affects of radiation on living organisms; VII Equipment; and VIII Economic aspects of energy production.

[172] Jürgen Grunwald, *Das Energierecht der Europäischen Gemeinschaften: EGKS-EURATOM-EG: Grundlagen – Geschichte – geltende Regelungen* (Berlin: De Gruyter Recht, 2003), p. 196.

[173] The Commission may not publish the communicated programmes without the consent of the Member States, persons or undertakings.

[174] While Article 215 set up of the initial research and training programme, Annex V provided the details. These provisions are now repealed.

The successive research programmes have been set up according to a procedure provided for in the Treaty. The Council adopts the programmes by unanimity on a proposal by the Commission. The Scientific and Technical Committee, an advisory body under the Euratom Treaty, shall be consulted.[175] There is no role for the European Parliament in this procedure.

3.4.2 The (Nuclear) Joint Research Centres

The activities in the research programmes are divided into an 'indirect' part and a 'direct part'. The 'indirect activities' are contracted out to Member States, persons or undertakings, third countries, international organisations, or nationals of third countries (Article 10). In some types of contracts, the Euratom only contributes financially. In other types, the Euratom also participates in the management of the project.[176]

The Joint Research Centre (JRC) carries out the 'direct activities' (Article 8).[177] The first JRC was established in 1959, when existing national research centres were 'Europeanised'. There are currently seven scientific institutes situated in five different Member States[178]: Petten (Netherlands); Ispra (Italy); Geel (Belgium); Karlsruhe (Germany); and Seville (Spain).[179]

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[175] Article 134 Euratom provides for the establishment of the Scientific and Technical Committee. The Committee is 'attached to the Commission'. The Council appoints its members, after consultation with the Commission.

[176] The first research programmes distinguished between 'standard research contracts', 'association contracts', and 'participation contracts'. The standard contracts were used for specific and limited projects, where the Euratom only contributed financially. In the 'association contracts', the Euratom not only contributed financially, but also participated in the management of the project. It used this type of contracts to extend its influence over national projects and to 'transform national projects into Community programs'. The projects were large scale, and about 70% of the research budget was spent on this type in the first 10 years. See Guzzetti, A Brief History of European Union Research Policy, p. 18.

[177] The JRC shall also establish a uniform nuclear terminology and a standard system of measurements.

[178] Article 8.2 Euratom provides that 'the activities of the Centre may, for geographical or functional reasons, be carried out in separate establishments'.

[179] The institutes are: Institute for Energy (IET); Institute for Reference Materials and Measurements (IRMM); Institute for Transuranium Elements (ITU); Institute for Protection and Security of the Citizen (IPSC); Institute for Environment and Sustainability (IES); Institute for Health and Consumer Protection (IHCP); Institute for Prospective Technological Studies (IPTS). The JRC also comprises three Directorates: the Scientific Policy and Stakeholder Relations Directorates; the Resources Directorate; and the Ispra site management.

Over the years, the JRC has been the subject of several reforms. The Treaty provides for the setting up of a Joint *Nuclear* Research Centre. Indeed, in the Community's first decade, the JRC (then JRNC) only carried out *nuclear* research activities. At the Paris Summit in 1972, the Heads of State and Government agreed that the JRNC's activities would be expanded to include non-nuclear activities ('in response to new policy priorities'). Consequently, the JRNC was renamed Joint Research Centre (JRC), i.e., there is no longer a reference to 'nuclear'. Although a lot of research carried out by the JRC today is not nuclear-related, the EU Treaties do not provide a legal basis for the establishment of the JRC; there is only a legal basis in the Euratom Treaty.[180]

In 1988, the JRC was incorporated into the process of completing the Single Market, launched by the Single European Act. This involved an emphasis on the link between the industry and research.[181] The JRC's activities started providing scientific and technological support for EU policies more generally. In 1998, the JRC turned into a 'reference centre' for science and technology. Today, its activities contain a wide range of fields, including consumer protection, agriculture, food security, environment and climate change, energy security, and the sustainable management of natural resources. It has transformed into a 'customer-driven, research-based policy support organisation'.[182] The JRC is a part of the European Research Area and it is now a Directorate-General under the Commissioner for Research, Innovation and Science.[183]

3.4.3 Education and Training

When the Euratom was negotiated, there was a lack of specialists in the nuclear field. The access to skilled labour was crucial for the development of the industry. The Treaty therefore came to include a provision on education and training (Article 9), which provides that the Commission may 'set up schools for the training of specialists'. The initial plans were rather ambitious, but not much was ever achieved. In the 1960s, the Commission examined the possibility of issuing

[180] The Euratom Treaty, however, still refers to the Joint *Nuclear* Research Centre.
[181] Guzzetti, A Brief History of European Union Research Policy, p. 112.
[182] See the JRC's website: http://ec.europa.eu/dgs/jrc/index.cfm?id=2260.
[183] The JRC has a staff of around 2,750. Its annual budget is around €330 million. Ibid.

a Community-level diploma for engineers and technicians specialising in nuclear energy ('Euratom technical training certificates') and to set up a European Institute of Nuclear Science and Technology.[184] The Euratom restricted itself to promoting advanced training schemes and organised courses at the nuclear research centres. In the past decade, most activities seem to have taken place *outside* the Treaty framework. One example is the ENEN Association, which was established as an international organisation in 2003. The members are public or private corporate bodies based in the EU or in one of the candidate states or the associated states. The ENEN cooperates with the European Commission and with international organisations such as the IAEA and the OECD.[185] It seeks to realise objectives that had been proposed under the Euratom framework in the 1960s; for example, it aims to harmonise a European Master of Science curriculum in nuclear disciplines.[186]

The Euratom Treaty also provides for the establishment of 'an institution of university status' (Article 9).[187] This provision was inserted in the Euratom Treaty following the discussions on a European University, which had long preceded the existence of the Community Treaties.[188] It should be pointed out that the Treaty does not explicitly refer to an institute for *nuclear scientists*. Already from the outset, it was clear that the institute would not be limited to the nuclear field. But the Member States were divided on this issue. France argued that the provision could only be applied for a nuclear institute, as it was located

[184] Fourth General Report on the Activities of the Community (April 1960 to March 1961); Fifth General Report on the Activities of the Community (April 1961 to March 1962); and Sixth General Report on the Activities of the Community (March 1962 to February 1963).
[185] The ENEN's main objective is to preserve and to develop expertise in the nuclear fields through the co-operation between universities, organisations, regulatory bodies, and the industry. See Article 2.1 of the ENEN Statute.
[186] Note also the creation of the European High Education Area for nuclear disciplines, which initiated the implementation of the Bologna process in nuclear disciplines. See http://ec.europa.eu/education/policies/educ/bologna/bologna_en.html.
[187] Article 9.2 Euratom states that the way in which it will function shall be determined by the Council, acting by a qualified majority on a proposal from the Commission. Article 216 Euratom, which was included in the provisions for the initial application of the Treaty stated: 'The Commission proposals on the way in which the institution of university status referred to in Article 9 is to function shall be submitted to the Council within one year of the entry into force of this Treaty'.
[188] For a detailed account of the history of the setting up of the European University Institute, see Jean Marie Palayret (ed.), *A University for Europe: Prehistory of the European University Institute in Florence (1948–1976)*, translated by Iain L. Fraser (Roma: Presidenza del Consiglio dei ministri, 1996).

in the Euratom Treaty.[189] Germany argued that the location of the provision to the Euratom Treaty simply 'marked the negotiators' concern not to forget the question of the European University, left open since Messina'; the reason it was not placed in the EEC Treaty was 'for lack of time and of any logical link with the other parts of the text'.[190]

In 1958, the Commission submitted proposals on a European Institute on the basis of Article 9 Euratom.[191] The institute would include five departments: law; economics; sociology; history and civilisation; and mathematics and theoretical physics.[192] In later discussions, it was suggested that Article 235 EEC (now Article 352 TFEU) would be added as a legal basis. It was finally decided that the negotiations would take place outside the treaty framework; the legal basis in the Euratom Treaty was regarded too limited. There were also fears that recourse to Article 235 EEC would create an undesirable precedent. The European University Institute was finally set up in 1972, outside the treaty framework, by an international convention.[193] An institute for nuclear scientists has never been established.

3.4.4 The Development of Research under the TFEU

The original EEC Treaty only provided for a limited competence in research, in the field of agriculture. But research soon became an area in which the EEC wanted to become more involved. In the 1960s, it became clear that Europe's spending on research was falling short of the United States and Japan. This had resulted in a 'brain drain' and 'technology gap' that could harm Europe economically. In 1974, the Council issued a Resolution on research where it emphasised the need to 'coordinate national policies within the Community

[189] Ibid., p. 52.
[190] Ibid.
[191] The proposals were submitted within the one-year limit provided for in Article 216 Euratom. The Commission suggested the creation of an institution that would have legal personality and be called the 'European University'. The Commission submitted the proposals in December 20, 1958. See the Second General Report on the Activities of the Community (September 1958 to March 1959), pp. 52–3.
[192] See Third General Report on the Activities of the Community (March 1959 to April 1960), pp. 34–6.
[193] See Convention Setting up a European University Institute, Florence, 19 April 1972.

institutions and to implement jointly projects of interest to the Community'.[194] A range of specific research programmes for non-nuclear activities followed.[195] Most of these research programmes concerned the environment, but the EEC also set up programmes for energy research.[196] As there was no specific legal basis for research, the programmes had to be adopted on the basis of Article 235 EEC (now Article 352 TFEU).[197] In the 1970s, research programmes were also set up for the JRC, including non-nuclear research. They were adopted as a single legal instrument, using a joint legal basis: Article 235 EEC and Article 7 Euratom.[198]

The Single European Act (SEA) introduced an explicit legal basis for research. As Guzzetti points out, the research provisions were closely linked to the completion of the Single Market and to the industry.[199] Article 130f stated that '[t]he Community's aim shall be to strengthen the scientific and technological basis of European industry and to encourage it to become more competitive at international level'. The Maastricht Treaty broadened the EEC research objectives. The aim was no longer restricted to strengthening the scientific and

[194] Council Resolution of 14 January 1974 concerning an initial programme of action of the EC in the field of science and technology, OJ 1974 No. C7, 29 January 1974 p. 6.
[195] Council Decision No 73/125/EEC of 14 May 1973 adopting a research programme in the field of standards and reference substances (certified reference substances) OJ 1973 No. L153, 9 June 1973, p. 9; Council Decision No 73/126/EEC of 14 May 1973 adopting a research programme on the protection of the environment, OJ 1973 No. L153, 9 June 1973, p. 11; Council Decision No 73/127/EEC of 14 May 1973, adopting a research programme in the field of teledetection of earth resources, OJ 1973 No. L153, 9 June 1973, p. 13; Council Decision No 73/174/EEC of 18 June 1973, adopting a research programme on the protection of the environment (direct project) OJ 1973 No. L189, 11 July 1973, p. 30; Council Decision No 73/175/EEC of 18 June 1973, adopting a research programme in the field of standards and reference substances (certified reference substances) OJ 1973 No. L189, 11 July 1973, p. 32; Council Decision No 73/176/EEC of 18 June 1973, adopting a research programme in new technologies (use of solar energy and recycling of raw materials) OJ 1973 No. L189, 11 July 1973, p. 34; Council Decision No 73/179/EEC of 18 June 1973, adopting a research programme in the field of reference substances and methods (Community Bureau of Reference), OJ 1973 No. L189, 11 July 1973, p. 41; Council Decision No 73/180/EEC of 18 June 1973, adopting a research programme for the protection of the environment (indirect project), OJ 1973 No. L189, 11 July 1973, p. 43.
[196] Council Decision 75/510/EEC of 22 August 1975 adopting an energy research and development programme, OJ 1975 No. L231, 2 September 1975, p. 1; and Council Decision 79/785/EEC of 11 September 1979 adopting an energy research and development programme 1979 to 1983, OJ 1979 No. L231, 13 September 1979, p. 30.
[197] The programmes were set up 'to help in attaining the objectives listed in Articles 2 and 3 of the [EEC] Treaty'.
[198] Council Decision 77/488/EEC, Euratom of 18 July 1977 adopting a research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community and for the European Economic Community (1977 to 1980), OJ 1977 No. L200, 8 August 1977, p. 4.
[199] See Guzzetti, A Brief History of European Union Research Policy, p. 112.

technological bases of the industry, but included 'promoting all the research activities deemed necessary by virtue of other Chapters in this treaty' (amended Article 130f EC).[200] The Maastricht Treaty also introduced some specific legal bases for research, in, for example, the area of public health. In recent decades, EU research has grown in importance, hand in hand with the emerging 'global knowledge economy'.[201] The Lisbon European Council (2000) endorsed the concept of a 'European Research Area',[202] which was later consolidated by the Lisbon Treaty (Article 179 TFEU). The Lisbon Treaty also made it a specific objective of the EU to 'promote scientific and technological advance' (Article 3(3) TEU).[203]

Thus, research has grown in importance with every treaty revision. It has also become a more supranational matter. The European Parliament and the Council now adopt the multiannual framework programmes by the ordinary legislative procedure (by qualified majority) after consulting the Economic and Social Committee (Article 182 TFEU). However, the legislative procedure under the Euratom Treaty has not changed. The Council adopts the Euratom research programmes, acting unanimously on a proposal from the Commission. There is no role for the European Parliament. The Commission shall consult the Scientific and Technical Committee. As shall be explained, there is, however, a clear tendency to streamline EU research and Euratom research.

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[200] As Guzzetti points out, this gave legitimacy to those research activities that had been adopted on the basis of Article 235 EEC, but that were not directly concerned with the competitiveness of European industry (for example, medical research). Ibid., p. 153.

[201] See the Commission's White Paper 'Growth, Competitiveness and Employment': The Challenges and Ways Forward into the 21st Century', COM(1993) 700; and the Commission Communication, 'Research and Technological Development: Achieving Coordination through Cooperation', COM(1994) 438 final.

[202] The concept is composed of all research and development activities, programmes and policies that involve a transnational perspective. It provides for free circulation of researchers, scientific knowledge and technology. The concept was first presented in Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee, and the Committee of the Regions, 'Towards a European Research Area', COM(2000) 6.

[203] EU research is now governed under Articles 179–190 TFEU ('Research and Technological Development and Space'). The Lisbon Treaty also clarifies what kind of initiatives the Commission can take in coordinating the Member States' research policies (Article 181.2 TFEU). Article 181.2 states that 'initiatives aiming at the establishment of guidelines and indicators, the organisation of exchange of best practice, and the preparation of the necessary elements for periodic monitoring and evaluation'.

3.4.5 Research Programmes

The EU sets out its activities in 'multiannual framework programmes' (Article 182.1 TFEU), which are to be implemented through specific programmes developed within each activity (Article 182.3 TFEU). This is a concept that comes from the Euratom Treaty. Another concept that is also brought from the Euratom is 'supplementary programmes' in which the Member States can participate *à la carte*. They involve the participation of certain Member States only, which shall finance them subject to possible Community participation (Article 184 TFEU). As explained in Chapter 1, 'A Brief History', the Euratom started to set up such programmes in the 1960s, as a response to the Euratom's crisis. They were then criticised for diluting the 'supranational aspects' of the research policy. When they were introduced under the EEC, they did not seem to have received the same critique.

The First Multiannual Framework Programme under the EEC was adopted in 1983.[204] It was a four-year programme and adopted as a Council Resolution. It covered activities for the EEC as well as for the Euratom. It took both the EEC Treaty and the Euratom Treaty as its legal basis: Article 235 EEC (the 'flexibility clause', now Article 352 TFEU) and Article 7 Euratom.[205] The ECSC was not mentioned. The programme's aim was to enhance the coherence of the Community's activities and to facilitate the preparation and adoption of decisions in the research field. It contained broad indications for the development of scientific and technical objectives; it would work as an 'umbrella' for the specific research programmes.

The Second Framework Programme was adopted in 1987, for a five-year period (1987–1991).[206] This is the longest time limit the Euratom Treaty allows for

[204] Council Resolution of 25 July 1983 on Framework Programmes for Community Research, Development and Demonstration Activities and a First Framework Programme 1984 to 1987, OJ 1983 No. C208, 4 August 1983, p. 1.
[205] A Council Decision was later set up, dealing with structures and procedures for the management and coordination of Community research, development and demonstration activities. See Council Decision 84/338/Euratom, ECSC, EEC of 29 June 1984 dealing with structures and procedures for the management and coordination of Community research, development and demonstration activities, OJ 1984 No. L177, 4 July 1984, p. 25.
[206] Council Decision 87/516/Euratom, EEC of 28 September 1987 concerning the framework programme for Community activities in the field of research and technological development (1987 to 1991), OJ 1987 No. L302, 24 October 1987, p. 1.

framework programmes. Unlike the First Framework Programme, which had been adopted in the form of a Resolution, the Second Framework Programme was adopted in the form of a Council Decision. As the SEA had introduced a specific legal basis for research for the EEC, there was no longer a need for recourse to Article 235 EEC: The programme was adopted under Article 130q EEC and Article 7 Euratom. The activities under the ECSC were again left outside; the Commission were undertaking autonomous activities under the ECSC, which were not financed under the general budget of the European Communities.

The Third Framework Programme was also set up for a five-year period (1990–1994).[207] As with previous programmes, it was adopted as a single instrument for both EEC research and Euratom research on a joint legal basis. The legislative procedure turned out to be long and difficult.[208] Perhaps as a result, from the Fourth Framework Programme (1994–1998) onwards, two separate programmes were adopted for EC research[209] and Euratom research.[210]

Another, perhaps more important reason as to why separate programmes were adopted, was the fact that the Maastricht Treaty had introduced a new decision-making procedure for EC research: the co-decision procedure. The Council still had to take the decisions by unanimity, but it was no longer seen as possible to adopt Euratom research and EC research in the same legal instrument.[211]

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[207] Council Decision 90/221/Euratom, EEC of 23 April 1990 concerning the framework Programme of Community activities in the field of research and technological development (1990 to 1994), OJ 1990 No. L117, 8 May 1990, p. 28.
[208] The Commission pointed out: 'The procedures, which normally involve both the Council and Parliament, are too cumbersome. The effectiveness of a research programme is substantially reduced when over two years is required for its adoption'. Commission Communication 'From the Single Act to Maastricht and Beyond', COM(1992) 2000.
[209] Decision No 1110/94/EC of the European Parliament and of the Council of 26 April 1994 concerning the fourth framework programme of the European Community activities in the field of research and technological development and demonstration, OJ 1994 No. L126, 18 May 1994, p. 1.
[210] Council Decision 94/268/Euratom of 26 April 1994 concerning a framework programme of Community activities in the field of research and training for the European Atomic Energy Community (1994 to 1998), OJ 1994 No. L115, 6 May 1994, p. 31.
[211] Separate decisions were also taken for the JRC's research programmes under the Euratom and under the EC. See Council Decision 2002/838/Euratom of 30 September 2002 adopting a specific programme for research and training to be carried out by the Joint Research Centre by means of direct actions for the European Atomic Energy Community (2002–2006), OJ No. L294, 29 October 2002, p. 86; and Council Decision 2002/836/EC of 30 September 2002 adopting a specific programme of research, technological development and demonstration to be carried out by means of direct actions by the Joint Research Centre (2002–2006), OJ 2002 No. L294, 29 October 2002, p. 60.

Previously, under the SEA, the Council was to adopt the EEC programmes with unanimity and the European Parliament had only a right to be consulted (Article 130q).[212] This was compatible with the Euratom procedure, except for the role of the European Parliament (as pointed out, the European Parliament is not mentioned at all in Article 7 Euratom). Later, the Amsterdam Treaty would provide that the Council was to decide on EC research by qualified majority. But there has never been a change in the Euratom procedure.

It was important to 'ensure coherence' between the separate EC and Euratom programmes. They were therefore adopted at the same time and for the same period. The Fifth Framework Programme (1998–2002) also sought to ensure coherence in this sense.[213] The EC programme contained provisions on energy research, which would be 'closely coordinated, as appropriate, with the activities of the fifth Euratom framework programme for research and training, while respecting the different legal bases of these two programmes'. The practice with two separate programmes was also applied for the Sixth Framework Programme (2002–2006)[214] and for the Seventh Framework Programme (2007–2013).[215]

[212] The setting up of the specific programmes (i.e., the constituent parts) was to be decided by the co-operation procedure, where the Council decided by qualified majority in the Council. The specific programmes shall now be decided with a special legislative procedure after consulting the European Parliament and the Economic and Social Committee.
[213] Council Decision 1999/64/Euratom of 22 December 1998 concerning the Fifth Framework Programme of the European Atomic Energy Community (Euratom) for research and training activities (1998 to 2002), OJ 1999 No. L26, 1 February 1999, p. 34; and Decision No 182/1999/EC of the European Parliament and of the Council of 22 December 1998 concerning the fifth framework programme of the European Community for research, technological development and demonstration activities (1998 to 2002), OJ No. L26, 1 February 1999, p. 1.
[214] Council Decision 2002/668/Euratom of 3 June 2002 concerning the sixth framework programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities, also contributing to the creation of the European Research Area (2002 to 2006), OJ 2002 No. L232, 29 August 2002, p. 34; and Decision No 1513/2002/EC of the European Parliament and of the Council of 27 June 2002 concerning the sixth framework programme of the European Community for research, technological development and demonstration activities, contributing to the creation of the European Research Area and to innovation (2002 to 2006), OJ 2002 No. L232, 29 August 2002, p. 1.
[215] Council Decision 2006/970/Euratom of 18 December 2006 Concerning the Seventh Framework Programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities (2007 to 2011), OJ 2006 No. L400, 30 December 2006, p. 60 (republished in OJ 2007 No. L54, 22 February 2007, p. 21); and Decision No 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007–2013), OJ 2006 No. L412, 30 December 2006, p. 1.

But there was no longer a reference to the Euratom programme in the EC programme, or vice versa.[216]

The EC Seventh Framework Programme was adopted for a period of seven years. As the Euratom Treaty limits the framework programmes to five years,[217] the Council had to extend the Euratom programme for another two years to align it with the EC programme (mainly to align it with the EU's financial cycle). The most recent EU framework programme, 'Horizon 2020',[218] will also last for seven years,[219] and a similar alignment is foreseen.[220] The Euratom budget is programmed within Horizon 2020 for seven years. The Euratom programme[221] is now less 'separate' than before. While the preamble of the extended Seventh Euratom Programme pointed out that it 'complement[s] other European Union

[216] This time, the programmes were not adopted on the same day.
[217] There is no such limitation under the EU Treaties.
[218] Regulation (EU) No 1291/2013 of the European Parliament and of the Council of 11 December 2013 establishing Horizon 2020 – the Framework Programme for Research and Innovation (2014–2020) and repealing Decision No 1982/2006/EC, OJ 2013 No. L347, 20 December 2013, p. 104.
[219] Council Regulation (Euratom) No 1314/2013 of 16 December 2013 on the Research and Training Programme of the European Atomic Energy Community (2014–2018) complementing the Horizon 2020 Framework Programme for Research and Innovation, OJ 2013 No. L347, 20 December 2013, p. 948.
[220] See Proposal for a Council Regulation on the Research and Training Programme of the European Atomic Energy Community (2014–2018) complementing the Horizon 2020 – The Framework Programme for Research and Innovation, COM(2011) 812 final. The time frame for the Euratom programme is 2014 to 2018. An additional decision will be taken for the years 2018 to 2020.
[221] In addition, and for the first time, the Euratom research programme will be implemented in one single instrument. In previous years, the Euratom framework programmes were implemented through separate instruments: one Decision on the framework programme, one Decision on the Specific Programme for Indirect actions, one Regulation laying down the rules for participation, and one Decision on the specific programme for JRC actions. The latter instrument was adopted on the basis of the EC Treaty. See Council Decision 2006/975/EC of 19 December 2006 concerning the Specific Programme to be carried out by means of direct actions by the Joint Research Centre under the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007–2013)). The ITER activities are still regulated by a separate legislative act, which is outside the Multiannual Financial Framework. The reason is that large-scale projects tend to be 'disproportionately expensive' for the EU budget. The Commission explains: 'For projects such as ITER and GMES, where the costs and/or the cost overruns are too large to be borne only by the EU budget, the Commission proposes to foresee their funding outside the MFF after 2013. This will enable the EU to continue to fully meet its international commitments'. The Commission also points out: 'As their specific nature means they often overrun initial cost projections, the subsequent need to find additional funding triggers a need to redeploy funds that have already been earmarked for other priority needs'. See Commission Communication, 'A Budget for Europe 2020', COM(2011) 500 final.

actions in the area of research policy',[222] the new Euratom programme states that it will 'complement' the EU programme.[223]

3.4.6 International Cooperation

When the Euratom Treaty was negotiated, research was seen as a key factor in developing the nuclear industry.[224] To this end, the Euratom has concluded a range of bilateral agreements on nuclear research and development cooperation. The Euratom's cooperation agreements on the peaceful use of nuclear energy also contain provisions on research.[225] The Euratom has also established a so-called 'structure dialogue' with some countries to identify a common set of research areas. But the Euratom has never been a predominantly *scientific* organisation. Other international organisations are dedicated purely to research. One example is the European Organisation for Nuclear Research (CERN), which was established in 1954 and which cooperates closely with the Euratom.[226] The Euratom also cooperates with the Nuclear Energy Agency (NEA, previously ENEA) and with the IAEA.

The Euratom also participates in a range of multilateral projects.[227] For example, the Framework Agreement for International Collaboration on Research and

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[222] See Council Decision 2012/93/Euratom of 19 December 2011 concerning the Framework Programme of the European Atomic Energy Community for nuclear research and training activities (2012 to 2013) OJ 2012 No. L47, 18 February 2012, p. 25.
[223] The Commission even stated in its proposal that the Euratom programme would constitute 'an integral part' of the EU programme. Both the EU programme and the Euratom programme take the form of a Regulation. Previous programmes have taken the form of a Decision (except for the first programme which took the form of a Resolution).
[224] Guzzetti, A Brief History of European Union Research Policy, p. 2.
[225] It has signed such agreements with Argentina, Canada, China, Japan, Kazakhstan, Russia, South Africa, Ukraine, the U.S., and Uzbekistan.
[226] Commission Decision 2009/488/EC, Euratom of 11 June 2009 on the conclusion of a Memorandum of Understanding between the European Commission and the European Organization for Nuclear Research (CERN) OJ 2009 No. L161, 24 June 2009, p. 13. This replaced the Administrative Arrangement between the EC and CERN signed on 10 October 1994.
[227] Other projects include the International Framework for Nuclear Energy Cooperation (formerly named the Global Nuclear Energy Partnership), which is a research and technology development initiative (established in 2006). It aims at developing technologies to improve the environment and reduce the risk of nuclear proliferation. Sometimes the Commission participates in multilateral projects on an informal basis as an observer. It is not always clear if the Commission then represents the Euratom or the EU. For example, the Commission participates in the meetings of the IAEA's project on Innovative Nuclear Reactors and Fuel Cycles. It was launched in 2000 and it provides a forum for discussion. Other examples include the Commission's participation in the International Science and Technology Center in Moscow, and

Development of Generation IV Nuclear Energy Systems,[228] which aims to reinforce cooperation on research in the next generation of nuclear energy systems.[229] The most significant (and costly) project is ITER (International Thermonuclear Experimental Reactor).[230] The project's objective is the construction of a major experimental facility to demonstrate the scientific and technical feasibility of fusion power. ITER was set up by an agreement in 2006 between Euratom, China, South Korea, the United States, Japan, India, and Russia.[231] These countries had previously concluded cooperation agreements with Euratom in the field of nuclear fusion. The Euratom manages its contribution for ITER through 'the European Joint Undertaking for ITER –

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the Science and Technology Center in Ukraine, both established in the 1990s. They aim at retraining nuclear scientists that were previously involved in the Soviet Union's WMD programme.

[228] Council Decision concerning the approval of the accession of the European Atomic Energy Community to a Framework Agreement for International Collaboration on Research and Development of Generation IV Nuclear Energy Systems, doc. 14929/05.

[229] The Agreement's predecessor was the 'Generation IV International Forum', established in 2001. It was a political agreement without financial implications, and therefore signed directly by the Commission in 2003 (in accordance with the procedure in Article 101(3) Euratom). The UK and France were members of the Generation IV International Forum, and they wanted to accede to the GIF Framework Agreement. The United States wanted to prevent multi-governmental organisations from taking part in the deliberations when one or more of the organisation's Member States also participate. The Commission explained that neither the Euratom, nor UK and France would then be allowed to sign the agreement. As a compromise, the Euratom agreed to make a declaration that it would not 'block consensus reached by the other Parties […] where both it and one or more of its member states are signatories'. The suggested Declaration read: 'In becoming a Party to this Framework Agreement, Euratom shall fully participate in all collaboration and deliberations under this Framework Agreement and any System Arrangement to which it is a signatory, but it shall not block consensus reached by the other Parties to this Framework Agreement or by the other signatories to System Arrangements where both it and one or more of its member states are signatories'. However, the declaration the Euratom finally communicated, conveyed this in slightly different terms: 'In becoming a Party to this Framework Agreement, Euratom shall fully participate in all collaboration and deliberations under this Framework Agreement and any System Arrangement to which it is a signatory. Euratom and its Member State Parties to the Framework Agreement – currently, France and UK – will harmonise their positions before any significant decision is taken in the implementation of the Framework Agreement and the relevant System Arrangements'. Thus, the Euratom and its Member States point out to third parties what is already there: the UK and France are bound by the principle of close cooperation. A declaration that would allow them to direct the terms of the Euratom's participation (as the US suggested) would not be possible.

[230] Agreement on the Establishment of the ITER International Fusion Energy Organization for the Joint Implementation of the ITER Project, OJ 2006 No. L358, 16 December 2006, p. 62 (see also INFCIRC/702). The agreement has duration of 35 years. The site for building ITER is fixed at Cadarache in France.

[231] The initial project started already in 1988. For a brief account of the history of the setting up of ITER, see Grunwald, Das Energierecht der Europäischen Gemeinschaften, p. 202.

'Fusion for Energy'.[232] In addition to the Euratom and all the Member States, Switzerland is also a member of the Joint Undertaking.[233]

3.4.8 'The Growth of the Nuclear Industry'?

As this account makes clear, Euratom research has influenced the shaping of EU research. Today, the research activities under the Euratom Treaty and the TFEU are intertwined to such a degree that it seems redundant to have specific legal bases for nuclear research. Nuclear research could just as well be adopted on the basis of the EU Treaties. For political reasons, however, it might be easier to adopt nuclear research activities if there is a separate legal basis. Separate decisions for EU research and Euratom research might also be necessary because of the Euratom's extensive contribution to research in nuclear fusion (which is the subject of ITER, mentioned above). About two-thirds of the Euratom's research budget is dedicated to this field.

Nuclear fusion is the procedure whereby two or more atomic nuclei are 'fused' together and form a single larger nucleus. The procedure is the opposite of nuclear *fission*, where atomic nuclei are split, and which is applied in nuclear energy production.[234] The nuclear fusion procedure is superior to nuclear fission in a number of ways: there is no possibility of a major accident; there are considerable advantages when it comes to nuclear waste; and there is only a small overlap with nuclear weapons technology. Research has been carried out since the 1950s,[235]but commercial energy production still lies in the distant future (it is unlikely before 2050). It is obvious that the market does not take the risk on such long-term projects. This could motivate the existence of separate research programmes for the EU and Euratom; the nature of research in this field demands separate decisions. However, one might argue that as nuclear

[232] Council Decision 2007/198/Euratom of 27 March 2007 establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it OJ 2007 No. L90, 30 March 2007, p. 58. The Joint Undertaking has its seat in Barcelona.
[233] The project has been very costly; the Euratom's research budget almost doubled in relation to the previous Framework Programme. Commission Staff Working Paper: Towards a Robust Management and Governance of the ITER project, SEC(2010) 1386 final.
[234] Initially, fission research focused on the development of reactor types. Today, it mainly focuses on safety and how to solve the waste problem.
[235] In the 1950s, research began into developing so-called controlled thermonuclear fusion for civil purposes.

fusion can only be applied in the very distant future (if at all), one can hardly say that Euratom research is aiming for 'the growth of the nuclear industry' (Article 1 Euratom).

But, long-term goals can also have a stabilising effect. Nuclear fusion was an important research area already in Euratom's very first research programme. Guzzetti explains that this was the first area in which the Commission succeeded in coordinating national research programmes.[236] This was often done in close cooperation with other research organisations, such as CERN.[237] During the Euratom Crisis in the 1960s, all activities were interrupted except for the fusion programme. As national interests were too far in the future, research in nuclear fusion proved to be more durable than research in fission to withstand disagreements between the Member States.[238] However, research in nuclear fusion has also been the subject of disagreements. In the 1970s, there was a long dispute between the UK and Germany on the choice of site for the 'Joint European Torus'.[239] There was also a discussion between participating countries on the degree of involvement of the Euratom in the JET.[240]

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[236] See Guzzetti, A Brief History of European Union Research Policy, p. 66.
[237] In 1958, the Euratom and CERN set up a European Study Group on Fusion. Its aim was to put forward suggestions for how to coordinate European fusion programmes.
[238] Guzzetti, A Brief History of European Union Research Policy, p. 61–7.
[239] After several meetings in the Council, the issue was finally settled outside the Community framework. The two countries bilaterally agreed that the JET project would be sited in the UK, in Culham (Oxfordshire). Guzzetti writes that Germany agreed that the JET project would be on British territory after the UK had helped Germany secure the release of hostages when a Lufthansa flight had been hijacked over Mogadischu. Ibid., p. 66.
[240] While the participating Member States (France, Germany, and the UK) wanted the project to be as independent of the Euratom as possible, Sweden and Switzerland, which also participated, were of the view that Euratom involvement was necessary in order to prevent the leading countries from becoming too dominant. In 1978, the JET was set up as a 'Joint Undertaking' under Title II, Chapter 5 of the Euratom Treaty (on Joint Undertakings, see the discussion under State aids in this chapter). The project was initially established for a duration of 12 years, but the Council extended it several times until 1999, when it was dissolved. The Joint Undertaking was replaced by association contracts (Article 10 Euratom) between the participating fusion research laboratories and the Euratom. The participating laboratories set up an umbrella organisation, the European Fusion Development Agreement (EFDA) to pool their resources, share costs and coordinate their research. See Council Decision 78/471/Euratom of 30 May 1978 on the establishment of the Joint European Torus (JET), Joint Undertaking, OJ 1978 No. L151, 7 June 1978, p. 10; Council Decision 88/447/Euratom of 25 July 1988, OJ 1988 No. L222, p. 4; Council Decision 91/677/Euratom of 19 December 1991, OJ 1991 No. L375, p. 9; and Council Decision 96/305/Euratom of 7 May 1996, OJ 1996 No. L117, p. 9. Final notice – dissolution of the Joint European Torus (JET) joint undertaking, OJ 2002 No. C16/08, p 11. C 16, Volume 45, 19 January 2002. See also regarding the JET, Joined Cases T-177/94 and T-377/94, *Henk Altmann and*

3.5 Dissemination of Information

The Euratom Treaty provides for an additional 'freedom': the free flow of information. It is the duty of the Community to 'ensure the dissemination of technical information' (Article 2a). These aspects are elaborated upon in Title II, Chapter 2, Articles 12 to 28 Euratom. The rationale behind these provisions was to prevent the Member States from holding back information that could be useful for the development of nuclear energy in the Community and to avoid a duplication of efforts.[241] This was coupled with a certain degree of urgency: the Treaty Preamble makes clear that 'only a joint effort undertaken *without delay* can offer the prospect of achievements commensurate with the creative capacities of their countries'.[242] The provisions are very complex.[243] We shall briefly outline them below and then say a few words on how they protect the defence interests of the Member States. Thereafter, we shall discuss the intertwined relationship between Euratom and EU rules on dissemination of information under the research programmes. It will be shown that while the Euratom provisions have only a very limited practical significance, it is instead the rules adopted under the EU Treaties (as secondary legislation) that apply to Euratom research programmes.

3.5.1 The Provisions on Dissemination of Information

The provisions are very detailed,[244] and there is little need for recourse to secondary legislation. The rules were drawn up after national legislation, in

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Margaret Casson v. *Commission of the European Communities* [1996] ECR II-1471; [1996] ECR II-2041.

[241] Michel Gaudet, *EURATOM* (London: Pergamon Press, 1959), p. 164; and Jon F Tuttle, 'Patent Policies of the European Atomic Energy Community' (1968–1969) 30 *University of Pittsburgh Law Review* 331–69, at 351.

[242] Emphasis added.

[243] For an overview of the provisions on dissemination of information, see Peter H. Hay, 'Patent Aspects of Domestic Law, EURATOM, and the International Atomic Energy Agency' (1958) 56 *Michigan Law Review*, 770; Tuttle, 'Patent Policies of the European Atomic Energy Community', 331; Gaudet, 'EURATOM', 164–6; and Grunwald, Das Energierecht der Europäischen Gemeinschaften, pp. 203–9.

[244] The same holds true for Chapter 6 on Supplies and Chapter 7 on Safeguards. By comparison, the NEA's provisions on dissemination of information are much more general.

particular the United States Atomic Energy Acts of 1946 and 1954.[245] How is the dissemination of information ensured? Articles 12 to 13 Euratom cover information, including patents, which results from either the Community's own research programme or derives from contracts entered by Euratom ('association contracts'). The Member States may use this information on the basis of non-exclusive licenses on application to the Commission. Articles 14 to 23 Euratom concern information from the national research programmes. The Member States must communicate to the Commissions all patent applications (Article 16). If the owner of a patent does not consent to communicate the content of an application, the Member States shall notify the Commission of the existence of the application. The Commission may require the content to be disclosed after a certain time-period and under certain conditions. Such information, however, is only for documentation purposes; the Euratom cannot use it. The right to use the information from national research programmes can be acquired by amicable agreement, i.e., the Commission obtains the granting of licenses on voluntary co-operation (Article 14 and 15). If an amicable agreement has been adopted, the Commission shall establish a procedure that Member States, persons and undertakings may use as an intermediary for exchanging research results among themselves.

If such an amicable agreement fails, the Commission may be granted a non-exclusive license by arbitration or by compulsory powers (Article 17 to 23).[246] The person granted the licence must pay 'full compensation' to the patent holder. The Treaty also establishes an Arbitration Committee, which may be invoked under certain circumstances. Its decisions may be appealed to the ECJ.[247] As

[245] For a brief account of these Acts, see Peter H. Hay, 'Patent Aspects of Domestic Law, EURATOM, and the International Atomic Energy Agency' (1958) 56 *Michigan Law Review*, 770–86.
[246] Compulsory licences may also be granted to persons, undertakings, and Joint Undertakings established under the Euratom Treaty. The Treaty sets up different rules for these different applicants. The Community and Joint Undertakings have only to show that the granting of a license is 'necessary for the continuance of their own research or indispensable to the operation of their installations'. For persons and undertakings, there are more strict conditions.
[247] A Regulation on rules of procedure for the Arbitration Committee was adopted. See Regulation No 7/63/Euratom of the Council of 3 December 1963 on rules of procedure of the Arbitration Committee provided for in Article 18 of the Treaty establishing the European Atomic Energy Community, OJ 1963 No. 180, 10 December 1963, p. 2849, English special edition: Series I Volume 1963–1964, p. 56.

Mathijsen rightly points out, the provisions on compulsory powers are the most extensive powers under the Euratom Treaty.[248]

Many of these provisions have never been applied because restrictive practices have never materialised; no obstacles to the free movement of information seem to exist. Yet, this does not mean that the provisions are of no practical significance. Their mere existence might have had the effect that States made information accessible. In addition, due to the technological evolution since the 1950s, practical difficulties to disseminate information no longer exist.[249]

3.5.2 Security Provisions and Classified Information

The disclosure of information that is liable to harm the defence interests of one or more Member States shall be subject to a security system set up by the Community (Article 24 Euratom). Information is classified in accordance with Council Regulation No. 3 implementing Article 24.[250] This was one of the first regulations, adopted already in 1958, and it is still in force. A Member State, which communicates the existence of the content of a patent application, may request that a certain security classification shall be applied (Article 25 Euratom). Such patent applications may be used, but the Member State must give its consent. The Member State may only refuse due to national defence reasons.

The Euratom is liable when information is improperly used or has been communicated to unauthorised persons (Article 28 Euratom).[251] The Euratom

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[248] Pierre Mathijsen, 'Problems Connected with the Creation of Euratom' (1961) 26 *Law and Contemporary Problems* 438–53 at 442.

[249] Further, the knowledge is 'already known'. Interview with Euratom officials, Luxembourg, November 2012.

[250] EAEC Council Regulation No 3 implementing Article 24 of the Treaty establishing the European Atomic Energy Community, OJ 1958 No. 17, 6 October 1958, p. 406, English special edition: Series I Volume 1952–1958, p. 63. In 1992, the Commission adopted a proposal on security measures applicable to classified information produced or transmitted in connection with EEC activities or Euratom activities. Drawing on Euratom Regulation No. 3, the Commission proposed the establishment of security gradings for sensitive information for both EEC activities and Euratom activities. See Proposal for a Council Regulation on the security measures applicable to classified information produced or transmitted in connection with EEC or Euratom activities, COM(1992) 56 final, OJ 1992 No. C72, 21 March 1992, p. 15. The European Parliament criticised this proposal, and the Commission subsequently withdrew it. See Resolution by the European Parliament, OJ 1993 No. C176, 28 June 1993 p. 60.

[251] In 1989, the Commission adopted a Decision on declassification of documents covered by professional or business secrecy (under EC, Euratom, ECSC). It provides that the rules under the

Treaty also provides for a more general duty of secrecy incumbent on anyone obtaining access to sensitive nuclear information classified under the security system of a Member State or of a Euratom institution (Article 194 Euratom).[252] The Member States must prosecute anyone within its jurisdiction who commits an infringement of this obligation 'at the request of any Member State concerned or of the Commission'. These rules are more detailed and far-reaching than the corresponding provision in the TFEU (Article 339 TFEU, previously Article 287 EC), which merely requires institution members, committee members, and EU officials 'not to disclose information of the kind covered by the obligation of professional secrecy, in particular information about undertakings, their business relations or their cost components'. Thus, the TFEU provision does not require Member States to prosecute infringements.

We should also mention that there are some specific provisions on international agreements. The Treaty seeks to preserve the interests of third parties by explicitly giving precedence to international agreements (Article 17 Euratom).[253] Further, the Commission shall conclude agreements or contracts for the exchange of information, which requires 'the signature of a State acting in its sovereign capacity' (Article 29 Euratom). Under certain circumstances, the

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Archive Regulation covered by the obligation of professional or business secrecy may not be released to the public unless the person or undertaking concerned does not object. See Commission Decision 89/196/EEC, Euratom, ECSC of 3 March 1989 laying down detailed rules for the declassification of documents covered by professional or business secrecy, OJ 1989 No. L73, 17 March 1989, p. 52; and Commission Decision 90/631/Euratom, ECSC, EEC of 30 November 1990 amending decision 89/196/EEC, Euratom, ECSC laying down detailed rules for the declassification of documents covered by professional or business secrecy, OJ 1990 No. L340, 6 December 1990, p. 24.

[252] In 1999, the Commission adopted a decision relating to the procedures whereby officials and employees of the European Commission may be allowed access to classified information held by the Commission. See Commission Decision 1999/218/EC of 25 February 1999 relating to the procedures whereby officials and employees of the European Commission may be allowed access to classified information held by the Commission, OJ 1999 No. L80, 25 March 1999, p. 22.

[253] Article 17 Euratom, which provides that 'licences may be granted by arbitration or under compulsory powers', states that the provisions in that article 'shall not affect those of the Paris Convention for the Protection of Industrial Property'. In the same vein, Article 16 Euratom, which provides that Member States have to communicate all information, does not apply 'when an agreement concluded with a third State or an international organisation precludes communication'.

Commission may also authorise a Member State, a person or an undertaking to conclude such agreements.[254]

The security provisions were briefly discussed in the *Jason* Case,[255] which concerned the question of whether the Euratom Treaty is applicable to nuclear material and facilities intended for national defence. Advocate General Geelhoed was of the view that the Treaty applies, and argued that the existence of the security provisions demonstrated the 'sensitivity of the Treaty authors to the need to preserve nuclear defence and other secrets'.[256] The ECJ did not agree. The Court emphasised that the security provisions are 'limited in scope' and that their existence might be explained by the fact that the application of certain Treaty rules are liable to have an impact on activities and interests within the field of the national defence of the Member States.[257]

Let us finally say a few words on the Regulation on the opening to the public of the historical archives of the EEC and the Euratom ('the Archive Regulation') from 1983.[258] The Regulation was adopted on a joint legal basis: Article 235 EEC and Article 203 Euratom.[259] It provides that documents shall become available after the expiry of a period of 30 years. The Regulation explicitly excludes documents classified under Euratom Regulation No. 3 (which is mentioned

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[254] Article 29(2) states that '[s]ubject to the provisions of Articles 103 and 104, the Commission may, however, on such conditions as it considers appropriate, authorise a Member State, a person or an undertaking to conclude such agreements'.
[255] Case C-61/03, *Commission* v. *United Kingdom* [2005] ECR I-2477, Opinion of AG Geelhoed, paras 84–7. This case will be discussed in more detail in Chapter 4 'Radiation Protection'.
[256] The AG noted that the security system aims at 'ensuring that sensitive defence-related information is classified at an appropriate security level insofar as this is "strictly necessary" for Member States' defence interests' (ibid., para 84). He explained that the 'success of this system depends upon close cooperation between the Commission and Member States'. The AG referred to Article 13 Euratom, which states that the Commission may not disclose information which has been acquired subject to restrictions on its use or dissemination such as information known as classified information, to ensure compliance with these restrictions (ibid., paras 87–8).
[257] Case C-61/03, *Commission* v. *United Kingdom*, paras 32–3.
[258] Council Regulation (EEC, Euratom) No 354/83 of 1 February 1983 concerning the opening to the public of the historical archives of the European Economic Community and the European Atomic Energy Community, OJ 1983 No. L43, 15 February 1983, p. 1; and Council Regulation (EC, Euratom) No 1700/2003 of 22 September 2003 amending Regulation (EEC, Euratom) No 354/83 concerning the opening to the public of the historical archives of the European Economic Community and the European Atomic Energy Community, OJ 2003 No. L243, 27 September 2003, p. 1.
[259] A separate Commission Decision was adopted for the ECSC. See Commission Decision No 359/83/ECSC of 8 February 1983 concerning the opening to the public of the historical archives of the European Coal and Steel Community, OJ 1983 No. L43, 15 February 1983, p. 14.

above).[260] Previously, there was also an exception for contracts submitted to or concluded by the Euratom Supply Agency. In 2003, the Regulation was amended and this exception was deleted. In its explanatory memorandum accompanying the proposal on an amended Archive Regulation, the Commission explained that such documents were 'covered by the right of access' and that their disclosure may be refused only on the basis of the exceptions in the Regulation on public access to institution documents from 2001 ('Public Access Regulation').[261] The Commission clarified that the protection of supply contracts was 'ensured through the exception relating to commercial interests'. This Regulation is based only on the EC Treaty, but includes a reference to the Euratom Treaty.[262] The Commission explained that in Case 328/85 *Deutsche Babcock*, the ECJ had 'ruled that the provisions of the EC Treaty and those adopted under the Treaty are applicable to matters covered by the Euratom Treaty only by default'.[263] The 'Archive Regulation' and the 'Public Access Regulation' did not therefore cover documents classified in accordance with Regulation No. 3. As there were no Euratom provisions requiring that supply contracts were to be excluded, that exception could not be retained.

3.5.3 Dissemination of Information Through the Research Programmes

When discussing the area of research, we saw that Euratom and EU activities are becoming increasingly intertwined. We can observe a similar development when it comes to the dissemination of information. The original EEC Treaty did not contain any provisions on the dissemination of information; it did not foresee a

[260] Thus, such documents remain classified.
[261] Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents, OJ 2001 No. L145, 31 May 2001, p. 43. See, in particular, Article 4 and the special provisions of Article 9 of Regulation. See COM(2002) 462 final. The Commission also explained: 'if necessary, such documents could be protected on the basis of one of the exceptions to right of access, the application of which may be extended under Regulation (EC) No 1049/2001'.
[262] Prior to this Regulation, each institution had laid down provisions on access to documents in its rules of procedure. While the Commission Decision and the European Parliament Decision took their legal bases in all three Community Treaties, the Council Decision was only based on the EC Treaty. See Council Decision 93/731/EC of 20 December 1993 on public access to Council documents; Commission Decision 94/90/ECSC, EC, Euratom of 8 February 1994 on public access to Commission documents; and European Parliament Decision 97/632/EC, ECSC, Euratom of 10 July 1997 on public access to European Parliament documents.
[263] It should be pointed out that Deutsche Babcock was not about the Euratom Treaty – but about the ECSC Treaty. Case 328/85, *Deutsche Babcock* [1987] ECR 5119.

common research policy. But, as mentioned, in the 1970s, the EEC started to adopt specific research programmes on the basis of the flexibility clause. In connection with these programmes, the EEC adopted a Council Regulation on 'dissemination of information', also based on the flexibility clause.[264]

The Single European Act later introduced legal bases into the EEC Treaty for both research and dissemination of information.[265] The Council had to 'define the detailed arrangements for the dissemination of knowledge resulting from the specific programmes' (Article 130k(2)).[266] How does this provision relate to the Euratom Treaty provisions discussed above? Under the Third Framework Research Programme (1990), the Council adopted a Decision on the dissemination of information on the basis of this new legal basis.[267] The Decision only concerned EEC research, although, as mentioned, the Third Programme had been adopted as a single instrument for both EEC research and Euratom research. Nevertheless, the Decision recognised that the Euratom Treaty 'contains detailed provisions for the dissemination of information which apply, inter alia, to nuclear research programmes'.

As explained, from the Fourth Framework Programme onwards (1994), two separate instruments were adopted (one EC Framework Programme and one Euratom Treaty Framework Programme). While the EC Framework Programme stated that rules on the dissemination of information should be determined in a separate Council Decision, the Euratom Framework Programme referred directly to the Euratom Treaty: 'the Treaty contains precise provisions regarding the dissemination of know-how which apply principally to the nuclear research

[264] Regulation (EEC) No 2380/74 of the Council of 17 September 1974 adopting provisions for the dissemination of information relating to research programmes for the European Economic Community, OJ 1974 No. L255, 20 September 1974, p. 1.
[265] When the First Multiannual Framework Programme was adopted in 1983 (this was the combined EEC/Euratom programme). No special arrangements had been made for dissemination of information. The Council simply states that the research activities 'must be accompanied by adequate dissemination of the knowledge acquired'.
[266] This formulation was reiterated under the Second Framework Programme (1987), which was adopted under the SEA.
[267] Council Decision 92/272/EEC of 29 April 1992 on the dissemination and exploitation of knowledge resulting from the specific programmes of research and technological development of the Community OJ 1992 No. L141, 23 May 1992, p. 1. Article 4 of the Third Framework Programme states that 'the detailed arrangements for the dissemination and exploitation of the knowledge gained, in particular the definition and the implementation of the centralized action, shall be the subject of a Council Decision'.

programmes'.[268] This practice continued under the Fifth Framework Programme (1998): While the EC Research Programme stipulated that rules had to be adopted by the Council, the Euratom Programme referred directly to the Euratom Treaty.[269]

From the Sixth Framework Programme onwards (2002), there was no longer a reference to the Euratom provisions.[270] A reference was instead placed in the Euratom Regulation on 'Rules for Participation'.[271] The Maastricht Treaty had introduced to the EC Treaty an explicit legal basis on participation in research and training activities: the Council had to determine rules for participation of undertakings, research centres and universities (Article 130j). The Euratom Treaty did not contain such an explicit legal basis, but following the introduction of the new EC Treaty provision, the Euratom also started to adopt 'rules for participation' linked to its research programmes (based on Article 7 Euratom).[272]

This 'cross-treaty practice' was taken a step further under the Seventh Euratom Framework Programme.[273] The Euratom adopted a Council Regulation on Participation and on Dissemination of Research Results,[274] which provides that

[268] Council Decision 94/268/Euratom of 26 April 1994 concerning a framework programme of Community activities in the field of research and training for the European Atomic Energy Community (1994 to 1998) OJ 1994 No. L115, 6 May 1994, p. 31.
[269] Council Decision 1999/64/Euratom of 22 December 1998 concerning the Fifth Framework Programme of the European Atomic Energy Community (Euratom) for research and training activities (1998 to 2002), OJ No. L26, 1 February 1999, p. 34: 'The dissemination of research results will be carried out in accordance with Title II, Chapter 2 of the Treaty'.
[270] Council Decision 2002/668/Euratom of 3 June 2002 concerning the sixth framework programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities, also contributing to the creation of the European Research Area (2002 to 2006), OJ 2002 No. L232, 29 August 2002, p. 34.
[271] Council Regulation No 2322/2002 (Euratom) of 5 November 2002 concerning the rules for the participation of undertakings, research centres and universities in the implementation of the sixth framework programme of the European Atomic Energy Community (2002 to 2006), OJ 2002 No. L355, 30 December 2002, p. 35: 'The contract shall establish rules for dissemination and use of knowledge and results in accordance with Title II, Chapter 2 of the Treaty'.
[272] Council Decision 94/761/Euratom of 21 November 1994 concerning the rules for the participation of undertakings, research centres and universities in research and training activities of the European Atomic Energy Community, OJ 1994 No. L306, 30 November 1994, p. 1.
[273] Council Decision 2006/970/Euratom of 18 December 2006 Concerning the Seventh Framework Programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities (2007 to 2011), OJ 2006 No. L400, 30 December 2006, p. 60 (republished in OJ 2007 No. L54, 22 February 2007, p. 21).
[274] Council Regulation (Euratom) No 1908/2006 of 19 December 2006 laying down the rules for the participation of undertakings, research centres and universities in action under the Seventh Framework Programme of the European Atomic Energy Community and for the dissemination of research results (2007 to 2011), OJ 2006 No. L400, 30 December 2006, p. 1. A separate

each participant shall ensure that the information is disseminated 'as swiftly as possible', and if it fails to do so, 'the Commission may disseminate that [information] pursuant to Article 12 of the Treaty'.[275] This formulation suggests that the Euratom Treaty provisions on dissemination of information have become subsidiary to the rules in the Regulation; they will only apply in case of failure to follow the rules in the Regulation.

The practice described above with separate rules on the dissemination of information for EC research and Euratom research has now come to change. As we have seen, this has either been done through a direct reference to the Euratom provisions or the Euratom's adoption of a separate Regulation. Under the new multiannual framework programme ('Horizon 2020'), there is a single instrument on the dissemination of research results and participation,[276] which applies to both the EU programme and the Euratom programme. It has a single legal basis in the TFEU.[277] We shall add that the Euratom research programme also acknowledges the Euratom provisions: 'It is important to continue to facilitate the exploitation of intellectual property developed by participants while protecting the legitimate interests of other participants and the Community *in accordance with Chapter 2 of the Euratom Treaty*'.[278] The overall impression, however, is that the Euratom Treaty is becoming increasingly superfluous also in this area.

Regulation on participation and dissemination of results was adopted under the EC Programme. See Regulation (EC) No 1906/2006 of the European Parliament and of the Council of 18 December 2006 laying down the rules for the participation of undertakings, research centres and universities in actions under the Seventh Framework Programme and for the dissemination of research results (2007–2013), OJ 2006 No. L391, 30 December 2006, p. 1.

[275] See Article 45 of Council Regulation (Euratom) No 1908/2006.

[276] Regulation (EU) No 1290/2013 of the European Parliament and of the Council of 11 December 2013 laying down the rules for participation and dissemination in 'Horizon 2020 – the Framework Programme for Research and Innovation (2014–2020)' and repealing Regulation (EC) No 1906/2006, OJ 2013 No. L347, 20 December 2013, p. 81.

[277] The Commission explains that this construction is 'to ensure the most efficient implementation possible, and easy access for all participants through simplified procedures, and to achieve a coherent, comprehensive and transparent framework for participants'. Proposal for a Council Regulation on the Research and Training Programme of the European Atomic Energy Community (2014–2018) complementing the Horizon 2020 – The Framework Programme for Research and Innovation, COM(2011) 812 final, recital 22. This formulation has been removed from the Regulation.

[278] Council Regulation (Euratom) No 1314/2013, recital 26. Emphasis added.

The Market-Oriented Organisation

The previous sections examined the Euratom provisions (or functions) that could be regarded as 'dirigiste' (and we saw that not all of them fit neatly into that characterisation). We shall now examine aspects of the Euratom that could be regarded as 'market-oriented'. The focus here is on overlaps and gaps. We shall first examine the provisions on the nuclear common market. In comparison to the internal market provisions, the Euratom provisions are not as 'exhaustive'. How shall we deal with such 'gaps' in the Euratom Treaty? We will then turn to competition law and State aid. The Euratom contains no provisions in these two areas. Can the provisions in the TFEU apply to the nuclear industry? How is this compatible with the Euratom Treaty's central objective to promote the nuclear industry?

3.6 The Nuclear Common Market

This section discusses the Euratom provisions on a nuclear common market. Article 2(g) stipulates that it is the task of the Community to:

> [E]nsure wide commercial outlets and access to the best technical facilities by the creation of a common market in specialised materials and equipment, by the free movement of capital for investment in the field of nuclear energy and by freedom of employment for specialists within the Community.

The provisions on the nuclear common market are detailed in Title II, Chapter 9, Articles 92 to 100. They are very similar to the provisions on the internal market under the TFEU. The Euratom Treaty contains provisions of both products and production factors: it contains provisions for the free movement of goods (Articles 92 to 95), workers (Article 96), services (Article 97), and capital (Article 99).[279] In addition, the Euratom shall facilitate the conclusion of insurance contracts covering nuclear risks (Article 98).

[279] The EU Treaties include provisions on: Article 34–35 TFEU (goods); Article 45 TFEU (workers); Articles 49 TFEU (establishment); Articles 56–57 TFEU (services); and Article 63 TFEU (capital).

How has the nuclear common market evolved and how does it relate to the internal market under the TFEU? The nuclear common market came into effect in 1959, one year after the entry into force of the Euratom Treaty. Unlike the EEC Common Market, it was established in one single move.[280] In the Euratom's early years, scholars considered it an 'implied fact' that the nuclear common market was a part of the 'general common market'.[281] The nuclear common market was a 'preview' of the EEC common market,[282] which would be implemented progressively during a transitional period.[283] Many years later, in *Ruling* 1/78, the Court gave its view on the relationship between the nuclear common market and the general common market:

> [T]he provisions on the nuclear common market] appear to be nothing other than the application, in a highly specialized field, of the legal conceptions which form the basis of the structure of the general common market; in other terms, it relates to the liberalization of transfers of nuclear materials and of specialized materials and equipment without these movements being obstructed by barriers resulting directly or indirectly from national legislation on fiscal, commercial or technical matters. Like the EEC Treaty, the EAEC Treaty seeks to set up, with regard to matters covered by it, a homogeneous economic area.[284]

The Court here takes a *lex specialis* approach; the Euratom provisions are nothing more than an application of the legal conceptions, which form the basis of the structure of the general common market. As shall be clarified below, this reading does not give us much guidance about how to deal with the Euratom-EU relationship.

3.6.1 Free Movement of Nuclear Goods

Let us first consider the provisions on free movement of goods, which is dealt with in Articles 92 and 93 Euratom. Article 92 sets out the scope. It specifies that

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[280] Scheinman, 'Euratom: Nuclear Integration in Europe', p. 16.
[281] Mathijesen writes: 'Although the Euratom Treaty nowhere states that the nuclear common market is but a part of the general Common Market, this is implied'. See Pierre Mathijsen, 'Problems Connected with the Creation of Euratom, Law and Contemporary Problems' (1961) 26(3) *European Regional Communities* 438–53, at 445. See also Seventh General Report on the Activities of the Community (March 1963 to February 1964), where the Commission stated that the Nuclear Common Market is a 'part of the general common market being formed'.
[282] Gaudet, 'EURATOM', p. 164.
[283] Under the original three Community Treaties, each of the three Communities had its own Common Market. There were some similarities, but also some differences. For example, the Coal and Steel Community established its Common Market without a customs union. See Polach, EURATOM, p. 3.
[284] Ruling 1/78 [1978] ECR 2151, para 15.

the nuclear common market only aim at the free movement of *specific* goods: Only the goods and products listed in the Treaty's Annex IV are subject to the provisions.[285] A similar construction was found in the EEC Treaty, which in an annex listed agricultural products subject to the agricultural provisions forming a common market for agricultural products.[286]

Article 93 Euratom provides that the Member States shall prohibit between themselves 'all *customs duties* on imports and exports or *charges* having equivalent effect, and all *quantitative restrictions* on imports and exports'.[287] There is an important difference between this provision and the corresponding provisions under the TFEU. Article 93 Euratom does not explicitly prohibit 'measures having equivalent effect' to a 'quantitative restriction'; it only prohibits 'charges having equivalent effect' to 'customs duties'.[288] Does this mean that 'measures having equivalent effect' to quantitative restrictions are not prohibited under the Euratom Treaty? If so, can the provisions in the EU Treaties apply instead? According to Grunwald,[289] the explicit prohibition of import and export duties and quotas *necessarily* includes 'measures having equivalent effect'; this is implicit in the treaty text. It would otherwise be possible to circumvent the prohibition of duties and quotas.

If Grunwald was right about this, does this mean that the Court's interpretation of 'measures having equivalent effect' to quantitative restrictions applies to the Euratom Treaty? In *Dassonville*, the Court defined measures having equivalent effect as '[a]ll trading rules enacted by Member States which are capable of

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[285] The Council may amend the list by simple majority. It should be noted that the Nuclear Common Market has a broader scope than the Supply provisions, which are limited to 'ores, source materials and special fissile materials' and the Ownership provisions, which only cover 'special fissile materials'.

[286] Cf. Article 38 TFEU and Annex I, 'List referred to in Article 38 of the Treaty on the Functioning of the European Union'. For an (early) overview over the Common Market in Agriculture, see Kenneth W. Dam, 'The European Common Market in Agriculture' (1967) *Columbia Law Review* 209–65.

[287] Article 30 TFEU provides that 'Customs duties on imports and exports and charges having equivalent effect shall be prohibited between Member States'. Articles 34 to 35 TFEU prohibit quantitative restrictions on imports and exports, as well as measures having equivalent effect.

[288] Note also that while the TFEU spread out these provisions over several articles, the Euratom Treaty concentrates them to one single article.

[289] Grunwald, Das Energierecht der Europäischen Gemeinschaften, p. 268. See also Rudolf Lukes, 'Das Verhältnis des EAG-Vertrages zum EWG/EG-Vertrag', in Ole Due, Marcus Lutter, Jürgen Schwarze (eds.), *Festschrift für Ulrich Everling*, Band 1 (Baden-Baden 1995), p. 752.

hindering, directly or indirectly, actually or potentially, intra-Community trade'.[290] The Court later clarified and developed its view in a succession of cases. In addition, the Commission gives some guidance on what this phrase means in Directive 70/50,[291] where it lists matters that can constitute a measure of equivalent effect. To what extent can this Directive give guidance in the context of the Euratom Treaty? Before providing a tentative answer to these questions, we shall first observe another difference between the Treaties in this field.

The Euratom Treaty does not contain a list of derogations that can be invoked to keep imported goods out of the country or to prohibit the export of certain goods, similar to the provision in Article 36 TFEU (which includes 'public morality, public policy or public security, the protection of health and life of humans, animals or plants […], or the protection of industrial and commercial property').[292] Clearly, it is irrelevant that the Court has given a flexible interpretation to the definition of 'goods' in the context of the EU Treaties and nuclear energy would also fit into this definition.[293] While that interpretation concerns the meaning of 'goods' under what was then Article 9 EEC, the Euratom Treaty is itself very clear on what it means by 'goods': nuclear goods are listed in Annex IV. Therefore, the relevant question is rather whether the provisions in TFEU apply to a specific kind of goods that are regulated under another treaty.

Something that speaks against such a subsidiary application of the TFEU is the fact that the Euratom Treaty contains a list of derogations in relation to the free

[290] Case 8/74, *Procureur du Roi* v. *Dassonville* [1974] ECR 837, para. 5.
[291] Commission Directive 70/50/EEC of 22 December 1969 based on the provisions of Article 33 (7), on the abolition of measures which have an effect equivalent to quantitative restrictions on imports and are not covered by other provisions adopted in pursuance of the EEC Treaty, OJ 1970 No. L13, 19 January 1970, p. 29.
[292] This provision was inserted in the original EEC Treaty, but the Euratom Treaty has never contained such a clause.
[293] See Case 7/68, *Commission* v. *Italy* [1968] ECR 423, para 428: 'Under Article 9 of the [EEC] Treaty the Community is based on a customs union "which shall cover all trade in goods." By goods, within the meaning of that provision, there must be understood products which can be valued in money and which are capable, as such, of forming the subject of commercial transactions'. The Court has then clarified this definition in a line of cases. It has found that the definition of goods includes works of art, coins and bank notes no longer in circulation, waste, electricity, and natural gas, see Case 7/78, *Thompson* [1978] ECR 2247; Case C-358/93, *Bordessa and Others* [1995] ECR I-361; Case C-393/92, *Almelo* v. *Energiebedrijf Ijsselmij* [1994] ECR I-1477; Case C-159/94, *Commission* v. *France* [1997] ECR I-5815. The Court has also found that some products cannot be defined as goods, see Case C-318/07, *Persche* [2009] ECR I-359, para 29; Case 155/73, *Sacchi* [1974] ECR 409.

movement of labour in the nuclear sector (Article 96 Euratom). The grounds listed are 'the basic requirements of public policy, public security or public health'. If the treaty founders had also wanted a derogation from the free movement of nuclear goods, similar to the one in Article 36 TFEU, they could have simply included one in the Treaty. We shall add that the Court has held that the derogations in Article 36 TFEU are to be interpreted narrowly. One can therefore assume that no derogations are possible within the ambit of the Euratom Treaty.

Another more general argument against a 'subsidiary application' of the EU Treaties can be derived from the 'shall not derogate clause' in Article 106a Euratom.[294] The argument is that it would amount to a 'derogation' to 'fill in the gaps' of the Euratom Treaty because of the existence of the nuclear common market provisions. In other words, if there are Euratom provisions that regulate a certain field, we have to assume that they are exhaustive; they must pre-empt any 'gaps'. It would be another thing to give the Euratom Treaty a broad interpretation or to apply the EU Treaties by analogy. Thus, the Court's interpretation of 'measures having equivalent effect' to quantitative restrictions in the context of the EU Treaties does not necessarily apply to the nuclear sector.

3.6.2 Customs Union

Article 93 Euratom only has an internal dimension and, so far, we have only examined provisions on commercial exchanges *between* the Member States. Before the Amsterdam Treaty, the Euratom also contained provisions on external exchanges: Articles 94 and 95 on the establishment of a common customs tariff. Article 94 Euratom set up rules for products in 'List A1', 'A2', and 'B' in Annex IV. For 'List A1' products, which constitutes 'nuclear ores, raw materials and special fissile materials', the level of the Common Tariff would be that of the lowest tariff applied in January 1957 in any Member State. For 'List A2'

[294] See Olivier Pirotte, Pascal Girerd, Pierre Marsal, Sylviane Morson (eds.), Trente ans d'expérience Euratom, pp. 83–4. They argue in relation to the Court's reasoning in *Ruling* 1/78 on the nuclear common market: 'Les rapports établis par la Cour entre le Marché commun nucléaire et le Marche commun général sont contestables. Cette conception se heurte au principe d'indépendance réciproque de trois Traites affirmée par l'article 232 CEE, d'ailleurs confirme par une jurisprudence antérieure'.

products, which constitute 'other nuclear products' (e.g., by-products of nuclear processes), the Common Tariff would be decided by negotiations 'between the Member States', i.e., by means of an intergovernmental procedure.[295] In 1958, the Member States agreed on a Common Tariff for List A1 and A2.[296]

Special provisions applied for products in 'List B'.[297] These products could be used in both nuclear and non-nuclear (conventional) industries. As the List B products had a 'dual use', the tariff was to be determined under the rules of the EEC Treaty. As mentioned, the EEC Common Market was only to be implemented progressively during a transitional period, as opposed to the Nuclear Common Market, which would be implemented in one single move. Consequently, under Article 95 Euratom, the Euratom Council could decide upon an 'earlier application' of the duties of a Common Customs Tariff in respect to products in List B 'in cases where such earlier application would be of a nature to contribute to the development within the Community of nuclear energy'.[298] The Euratom General Report from 1965 points out: 'Since nuclear products are covered by the Community's common customs tariff, there has been close cooperation between the Euratom Commission and the EEC Commission regarding the system applied

[295] If it were not possible to reach agreement, the 'Community method' would apply instead. The Council would act by means of a qualified majority vote on a proposal of the Commission (but no role for the European Parliament).

[296] Agreement on the determination of a common customs tariff in respect of the products appearing on List A1 of Annex IV to the Treaty establishing the European Atomic Energy Community (EURATOM), OJ 1959 No. 20, 31 March 1959, p. 406; and Agreement on the determination of a common customs tariff in respect of the products appearing on List A2 of Annex IV to the Treaty establishing the European Atomic Energy Community (EURATOM), OJ 1959 No. 20, 31 March 1959, p. 410. There would be almost no duty for the products of List A1, and reduced or no duty for products of List A2. For some List A2 products, the duties were suspended until 1962 or 1964, when the Council would decide whether to extend the suspension. See Third General Report on the Activities of the Community (March 1959 to April 1960), pp. 59–60.

[297] List B products were previously termed 'dual-use items'. Heading deleted by Article 1 of Regulation No 5 of the Council of the European Atomic Energy Community of 22 December 1958, OJ 1959 No. 7, 9 February 1959.

[298] An 'earlier application' was needed when it came to reactor parts and spare parts, which were included among the goods and products specified in List B; under the U.S.-Euratom Agreement, the Commission had undertaken to reduce customs duties on goods and products to a minimum. Hence, reactor parts and spare parts had to be brought into the Nuclear Common Market without delay (See Second General Report on the Activities of the Community (September 1958 to March 1959). Article 95 was, however, not applied. Instead, the possibility in Article 92 to amend the lists in Annex IV was invoked; the items (reactors and spare parts) were moved from List B to List A2, by a Council decision in 1958. The reason for choosing Article 92 instead of Article 95 was perhaps because Article 92 only required a simple majority vote in the Council, as opposed to unanimity in Article 95. For all other List B items, it was thus the EEC Council and not the Euratom Council that fixed the tariffs.

to nuclear products in the negotiations'.[299] Polach explains that a specific procedure was set up to preserve Euratom's prerogative. When fixing the external tariff, the EEC Commission had to settle its proposal with the Euratom Commission before it was presented to the EEC Council.[300]

The three lists mentioned here still have a function. The free movement of List B products are bound by two conditions: (1) the products have to be subject to a common external tariff; and (2) they have to be covered by a certificate issued by the Commission to the effect that they are destined for nuclear uses. There are no such conditions for the free movement of List A1 and A2 products.

3.6.3 External Trade

The Amsterdam Treaty repealed the provisions on the common customs tariff discussed above, perhaps because they had already played out their role.[301] However, at the time when Articles 94 and 95 Euratom were still in force, the ECJ came up with a puzzling finding in Opinion 1/94 ('WTO Opinion').[302] It is worth dwelling on this Opinion, for it not only restricts the scope of the Euratom Treaty but also leaves many questions unanswered on the relationship between the Euratom and EU. In the Opinion, the Court addressed the question of whether the EC had the competence to conclude alone also those parts of the WTO Agreement that concerned products and/or services falling exclusively within the scope of application of the Euratom Treaty and the ECSC Treaty. We shall first consider the Court's conclusion on the application of the ECSC Treaty and then reflect on what it said about the Euratom Treaty.

According to Article 113 EC, the European Community was vested with a general competence to conclude external agreements in matters of commercial policy. The Commission was of the view that this exclusive competence also covered ECSC products. The Council's position was that it was the Member States that had this competence. The Council cited Article 71 ECSC, which provided that the

[299] Eighth General Report on the Activities of the Community (March 1964 to February 1965).
[300] Polach, EURATOM, p. 92.
[301] See Article 8 of the Treaty of Amsterdam Amending the Treaty on European Union, the Treaties establishing the European Communities and Related Acts, OJ 1997 No. C340, 10 November 1997.
[302] Opinion 1/94, WTO [1994] ECR I-5267.

powers of the Member States in the field of commercial policy were to remain unaffected by the application of the ECSC Treaty.[303] The Court pointed out that the 'shall not affect' clause (Article 232 EC, later renumbered to Article 305 EC) provided that the EC Treaty was not to affect the ECSC Treaty, in particular as regards the rights and obligations of Member States and the powers of the institutions. It recalled that the ECSC Treaty was drawn up at a time when the EEC was not yet in existence. The Court then held that Article 71 ECSC could only have been intended to cover international trade agreements relating *specifically* to ECSC products. It ruled that the Community had the sole competence pursuant to Article 113 EEC, which constitutes 'external agreements of a general nature'. Since none of the Multilateral Agreements on Trade in Goods related specifically to ECSC products, the Community's exclusive competence to conclude agreements could not be impugned on the ground that they also applied to ECSC products. The Court explained that Article 71 ECSC could not render Article 113 EC inoperative and affect the vesting of power in the Community for the negotiation and conclusion of international agreements in the common commercial policy area.

Thus, there was no strict boundary between the treaties in the sense that where ECSC products were involved, only the ECSC Treaty was applicable. One question that remains unanswered is at what point the general competence in the EC Treaty would have been applied. Would the EC Treaty have been applied as soon as an agreement on ECSC products also included other, and thus more general, products? As long as an agreement did not relate *specifically* to ECSC products, Article 71 ECSC was not affected by the application of the EC Treaty. Interestingly, the Court seems to have come to a different conclusion in *Opinion* 1/08 where it held that Article 133(6) EC would be deprived of its effectiveness if it would only cover agreements exclusively or predominantly relating to trade in transport services.[304]

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[303] Article 71 ECSC read: 'Unless otherwise stipulated in the present Treaty, the competence of the governments of the member States with respect to commercial policy shall not be affected by application of the present Treaty'.

[304] See Opinion 1/08, *Schedules of Specific Commitments Annexed to the GATS Agreement* [2009] ECR I-11129, paras 155 and 163. The Court held that international provisions with strictly the same object and contained in an agreement would in some cases fall within transport policy and

What about the application of the Euratom Treaty? The Court pointed out that neither the Council, nor any of the Member States that had submitted observations, disputed that the Community had exclusive competence to conclude the WTO Agreement in so far as it applied to Euratom products, but that this issue still had to be examined as the Commission had raised it. The Court also pointed out that Article 232(2) EC states that the EC Treaty provisions 'shall not derogate from those of the Treaty establishing the European Atomic Energy Community'. It then simply stated that '[s]ince the Euratom Treaty contains no provisions relating to external trade, there is nothing to prevent agreements concluded pursuant to Article 113 of the EC Treaty from extending to international trade in Euratom products'. This reading of the 'shall not derogate' clause means that if the Euratom is silent, application of the EC Treaty is possible in the alternative. Indeed, the Court was right in the sense that the Euratom contained no provision corresponding to Article 207 TFEU (then Article 113 EC) on trade agreements under the Common Commercial Policy. But as the provisions on a common customs tariff were still in force, it could have been argued that the Euratom still had 'provisions relating to external trade'.

Let us here consider a few other points that strengthen the view that the Court must have been mistaken or wrong. The Euratom has a general competence to enter international agreements. Article 101 Euratom provides that '[t]he Community may, within the limits of its powers and jurisdiction, enter into obligations by concluding agreements or contracts with a third State, an international organisation or a national of a third State'. A narrow reading would be that Article 101 underlines the existence of limits of the Euratom's external competence and that the Euratom may only enter agreements within those limits.[305] In other words, Article 101 cannot itself provide a legal basis. This was a suggested interpretation of the EEC Treaty, which initially contained no

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other cases within commercial policy. The choice of legal basis could not depend 'solely on whether the contracting parties to the agreement decided to deal only with trade in such sensitive services or whether they agreed to deal at the same time with that trade and with trade in some other type of services or in services as a whole' (para 140). For a discussion, see Marise Cremona, 'Balancing Union and Member State Interests: Opinion 1/2008, Choice of Legal Base and the Common Commercial Policy under the Treaty of Lisbon' (2010) 35 *European Law Review* 678–94.

[305] Note also that certain articles of the Euratom Treaty provide explicitly for competence to conclude international agreements. See e.g., Article 206 Euratom on association agreements.

general provision recognising international capacity, save for Article 210 EEC, on the Community's international legal personality.[306] But the Euratom had already from its inception been vested with an explicit treaty making power.

We shall here defend a broader reading of Article 101 Euratom, which also has some support in the literature: Article 101 could be understood as a competence *in foro, ex foro*, i.e., if the Treaty provides an *explicit internal* competence in a field, there must also be an *implicit external* competence in that same field.[307] Consequently, as the Treaty provides for an *in foro* competence on a nuclear common market, the Euratom must also have an *ex foro* competence to conclude international nuclear trade agreements. This broad reading is also supported by the fact that Article 199 Euratom provides that the Commission is responsible for ensuring 'all appropriate relations' with the WTO. It is hard to see why there would be such a provision if the Treaty founders had not envisaged that the Euratom would govern external trade. Note also that unlike the original EEC Treaty, the Euratom had a task that was directed to the external world; it would 'contribute to the relations with the other countries'.[308]

Moreoever, the Euratom is in fact exercising its external competence in this field; it has concluded several bilateral agreements on 'Peaceful Cooperation in the Field of Nuclear Energy' (mainly with its major suppliers and with customers) on the basis of Article 101 Euratom. The United States, the world's leader in nuclear technology in the 1950s, introduced these types of agreements.[309] This was a way of controlling that exported nuclear items were only used for peaceful purposes. In 1958, the Euratom concluded such an agreement with the United

[306] On the EC's implicit external competence, see e.g., Alan Dashwood, 'Implied External Competence of the EC', in Martti Koskenniemi (ed.), *International Law Aspects of the European Union* (the Hague: Kluwer Law International, 1998), pp. 113–24.
[307] See Trevor C. Hartley, *The Foundation of European Community Law: an Introduction to the Constitutional and Administrative Law of the European Community* (Oxford: Oxford University Press, 2007), pp. 175–7; and Piet Eeckhout, *External Relations of the European Union: Legal and Constitutional Foundations* (New York: Oxford University Press, 2004), p. 59. See also the discussion in Chapter 5, 'Nuclear Safety'.
[308] See Article 1 Euratom. Cf. Article 2 EEC, which merely aimed to 'promote […] closer relations between the Member States'.
[309] The United States had changed its legislation under its Atoms for Peace Program to allow for transfers of technology, materials, and nuclear information.

States,[310] in 1959, with Canada,[311]and in 1981, with Australia (renewed in 2012).[312] In recent years, the Euratom has also concluded such agreements with South Africa (2013), Kazakhstan (2009), Japan (2007), Ukraine (2006), Uzbekistan (2003), and Argentina (1997).[313] These agreements include some provisions that directly and explicitly concern nuclear trade; for example, Article 4 of the Euratom-U.S. Agreement states that the parties shall facilitate trade in the mutual interest of the industry, utilities and consumers, and that authorisations and licenses shall not be used to restrict trade.[314] The agreements also include provisions that create conditions for nuclear export; for example, conditions on safeguards, nuclear safety, and nuclear waste.[315] These agreements could be characterised as trade agreements to the extent that they create conditions for nuclear export.

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[310] The agreement with the United States was renewed in 1996. See Agreement for cooperation in the peaceful uses of nuclear energy between the European Atomic Energy Community and the United States of America, OJ 1996 No. L120, 20 May 1996, p. 1.

[311] Agreement between the Government of Canada and the European Atomic Energy Community (Euratom) for cooperation in the peaceful uses of atomic energy, OJ 1959 No. 60, 24 November 1959, p. 1165. The agreement with Canada was amended in 1978. See Amendment to the Agreement of 6 October 1959, in the form of an exchange of letters, between the European Atomic Energy Community (Euratom) and the Government of Canada for cooperation in the peaceful uses of atomic energy, OJ 1978 No. L65, 8 March 1978, p. 16. Before the UK became a member of the European Communities, there was also an agreement between the Euratom and the UK. See Agreement between the European Atomic Energy Community (Euratom) and the Government of the United Kingdom of Great Britain and Northern Ireland for cooperation in the peaceful uses of atomic energy, OJ 1969 No. L73, 26 March 1969, p. 8.

[312] Agreement between the Government of Australia and the European Atomic Energy Community (Euratom) for cooperation in the peaceful uses of nuclear energy, OJ 2012 No. L29, 1 February 2012, p. 4.

[313] Agreement between the Government of the Republic of South Africa and the European Atomic Energy Community (Euratom) for Cooperation in the Peaceful Uses of Nuclear Energy, OJ 2013 No. L204, 31 July 2013, p. 3; Agreement for co-operation in the peaceful uses of nuclear energy between the European Atomic Energy Community and the Government of the Republic of Kazakhstan, OJ 2009 No. L10, 15 January 2009, p. 16; Agreement between the Government of Japan and the European Atomic Energy Community for co-operation in the peaceful uses of nuclear energy, OJ 2007 No. L32, 6 February 2007, p. 65; Agreement between the European Atomic Energy Community and the Cabinet of Ministers of Ukraine for Co-operation in the Peaceful Uses of Nuclear Energy, OJ 2006 No. L261, 22 September 2006, p. 27; Agreement for cooperation in the peaceful uses of nuclear energy between the European Atomic Energy Community (Euratom) and the Government of the Republic of Uzbekistan, OJ 2003 No. L269, 21 October 2003, p. 9; Agreement for cooperation in the peaceful uses of nuclear energy between the European Atomic Energy Community (Euratom) and the Government of the Argentine Republic, OJ 1997 No. L296, 30 October 1997, p. 32.

[314] See also Article V on 'Trade in nuclear material, non-nuclear material or equipment' in the agreement from 2013 with South Africa.

[315] It should also be noted that the Commission points out in its 2009 Communication on non-proliferation, that '[t]he conclusion of a bilateral Euratom cooperation agreement in peaceful uses of nuclear energy should become a priority with all key countries wishing to have significant nuclear trade with the EU Member States and/or EU industry', COM(2009) 143 final.

It should also be pointed out that the Euratom and the parties to these agreements have made declarations to the Energy Charter Treaty that 'trade in nuclear materials' shall be exclusively governed by the Euratom agreements and not by the nuclear trade provisions in the Energy Charter Treaty.[316] In the light of the *WTO Opinion*, in which the Court says that the Euratom Treaty 'lacks provisions'[317] on external trade, how are these agreements to be understood? Are the trade provisions in these agreements *ultra vires*? Or was the Court simply wrong?

Finally, we should note the discrepancy between the Court's decision in the *WTO Opinion* and *Ruling* 1/78.[318] In *Ruling* 1/78, the Court held that the competence to enter *Draft Convention on the Physical Protection of Nuclear Materials* is partly within the competence of the Member States and partly within the competence of the Community. The Member States could not, therefore, enter this agreement alone. If the Community would not also enter as a party, 'it would then not be possible for the Community to define a supply policy and to manage the nuclear common market properly'.[319] The Ruling seems here to confirm that the Euratom has external competence when it comes to nuclear trade.

3.6.4 Free Movement of Production Factors

As explained, the Euratom Treaty also contains provisions on free movement of production factors. The Treaty provides for the free movement of labour, services, and capital. How do these provisions relate to the corresponding provisions under the EU Treaties? Obviously, the Euratom Treaty only provide

[316] See Declaration 7 (with respect to Annex G(4)) of The Energy Charter Treaty, Brussels, 17 December 1994, in force 16 April 1998, 2080 UNTS 95; 34 ILM 360 (1995). However, the Council Decision on the conclusion of the Amendment to the trade-related provisions of the Energy Charter Treaty was adopted solely on the EC Treaty and not on the Euratom Treaty, probably because of the WTO opinion. See Council Decision 2001/595/EC of 13 July 2001 on the conclusion by the European Community of the Amendment to the trade-related provisions of the Energy Charter Treaty, OJ 2001 No. L209, 2 August 2001, p. 32.
[317] Indeed, 'lacking provisions' and lacking competence are not exactly the same.
[318] Ruling 1/78 [1978] ECR 2151.
[319] The Court held that 'It would then not be possible for the Community to define a supply policy and to manage the nuclear common market properly if it could not also, as a party to the convention, decide itself on the obligations to be entered into with regard to the physical protection of nuclear materials in so far as its functions in the fields of supply and the nuclear market were affected'. Ibid., para 15.

for *specific* categories of labour and capital; just like the provisions on free movement of nuclear goods, the free movement of production factors has a limited scope. Let us first consider free movement of workers. The supply of specialists was (and still is) crucial for the nuclear industry. Article 96 Euratom reads:

> The Member States shall abolish all restrictions based on nationality affecting the right of nationals of any Member State to take skilled employment in the field of nuclear energy, subject to the limitations resulting from the basic requirements of public policy, public security or public health.

This provision establishes a freedom of movement for workers in the nuclear industry. Although less detailed, it corresponds largely to Articles 45 and 46 TFEU. As already mentioned, Article 96 Euratom is the only provision that sets up an exception from free movement. It provides for retention of restrictions that may arise out of considerations of public safety, health and order.

Article 96 Euratom states that the Council may issue directives for its application. In 1962, the Euratom Council adopted a Directive that defined the specialised employment in the nuclear field and also a list of examples of jobs covered by that definition.[320] The procedure leading to free movement of employment in the Euratom was to be 'no less liberal' than that which the Member States had instituted for under the EEC.[321]

We shall add that there are some provisions that complement the free movement of workers in the nuclear industry.[322] We have already, in another context, mentioned Article 9 Euratom, which provides for the setting up of schools for the training of specialists, and for the establishment of an institution of university status. The free movement of nuclear workers is also linked to Article 30, which

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[320] CEEA Conseil: Directive sur le libre accès aux emplois qualifiés dans le domaine nucléaire, OJ 1962 No. 1650, 9 July 1962, p. 57, Cf. Article 41 Euratom, which concerns 'persons and undertakings engaged in the industrial activities listed in Annex II' to the Treaty.
[321] Polach, EURATOM. See also Fifth General Report on the Activities of the Community (April 1961 to March 1962), pp. 103–4. The EEC had already adopted the EEC Regulation No. 15 on the free movement of workers. The initial draft for a Euratom Directive on the free movement of specialised workers had to be revised after the initiative of the European Parliament, which had emphasised the need to avoid any risk of a clash between the Euratom Directives and the measures concerning free movement of workers adopted under the EEC. Ibid.
[322] See Grunwald, Das Energierecht der Europäischen Gemeinschaften, pp. 273–4.

provides that basic standards shall be adopted for the protection of the health of workers. If there were to be free movement of nuclear workers, the Community also had to guarantee their safety.

The next production factor to consider is the free movement of establishment. Article 97 reads:

> No restrictions based on nationality may be applied to natural or legal persons, whether public or private, under the jurisdiction of a Member State, where they desire to participate in the construction of nuclear installations of a scientific or industrial nature in the Community.

The corresponding provisions under the TFEU are Articles 49 to 55. Two observations can be made. First, they are much more detailed than Article 97 Euratom. Second, the existence of this provision did not prevent the EU legislator from adopting a Directive on the basis of the EEC Treaty on procurement rules for the utilities sector, including the nuclear sector.[323] The Directive's preamble refers to Article 97 Euratom, adding '[w]hereas these objectives also require the coordination of the procurement procedures applied by the entities operating in these sectors'. A joint legal basis was not used.

The Euratom Treaty also includes a provision on freedom of movement of capital (Article 99). It reads: '[t]he Commission may make any recommendations for facilitating movements of capital intended to finance the industrial activities listed in Annex II to this Treaty'. This provision provides only for a rather limited competence; the Commission can only make recommendations. Just like the other provisions on the nuclear common market, it has a limited scope. The recommendations can only concern the activities listed in Annex II.[324] There is no general prohibition of the restrictions on the movement of capital. This raises the question of whether capital restrictions intended to finance the industrial activities referred to in Article 99 can be prohibited under the EU Treaties? Or are the Member States free to impose restrictions, as there is no prohibition in Article 99? The question is again whether the EU Treaties can be applied in a

[323] Council Directive 90/531/EEC of 17 September 1990 on the procurement procedures of entities operating in the water, energy, transport and telecommunications sectors, OJ 1990 No. L297, 29 October 1990, p. 1.

[324] The Amsterdam Treaty repealed Article 100 Euratom, which provided that each Member State shall undertake to authorise, in the currency of the Member State in which the creditor or the beneficiary resides, payments connected with the movement of goods, services or capital.

subsidiary manner, or whether Article 99 Euratom is exhaustive. If we apply the same reasoning as for the free movement of goods, the answer is that the TFEU does not apply.

3.6.5 The Effectiveness of the Nuclear Common Market

Is the nuclear common market a success or failure? The answer to this question has varied over the years. In the Euratom's early years, the nuclear common market was one of the Treaty's most central activity areas. It was believed to have considerable integrative potential. But the initial effect was rather limited.[325]As Polach points out, the Member States had already in 1956 entered interim agreements on the liberalisation of nuclear trade within the framework of the OEEC. So, when the nuclear common market was established, arrangements on the liberalisation of nuclear trade were already in place. The nuclear common market merely provided a new legal basis and made the interim arrangements permanent.[326]

Only a few years after the entry into force of the Treaty, the nuclear common market was regarded as successful. According to the Euratom's General Report from 1963, the abolition of custom duties and import quotas on nuclear products had 'facilitated commercial transactions which have again increased in the course of this year, both between MS and between the Community and outside countries'.[327] Polach writes that:

> It is obvious that atomic integration spurred commerce in products which were largely outside the channels of trade until then. It is equally obvious that the abolition of trade impediments in

[325] Polach, EURATOM, pp. 90–1.
[326] Polach was also sceptical about nuclear energy integration by free trade, at least in an initial phase. Polach writes: 'In the present stage of the atomic arts, the six countries resemble an underdeveloped area when compared to the nuclear-advanced countries, the United States, United Kingdom, and Soviet Union. It has been recognized that in such case some protective tariffs are admissible, at least during the transitory period, so that the welfare implications of domestic industrial growth will more than counterbalance any eventual loss of welfare due to the trade-diverting effects'. Ibid., p. 182.
[327] Sixth General Report on the Activities of the Community (March 1962 to February 1963).

the Euratom Common Market facilitates trade and thus creates favourable conditions for nuclear industries.[328]

In the Euratom's General Report from 1964,[329] the Commission stated that the nuclear common market had been 'fully realized as regards its regulations' and that customs duties no longer existed. But from the mid-1960s and onwards, the nuclear common market was again largely described as dysfunctional. Scheinman writes: 'with the increase in the over-all industrial strength of the Community and occasional pressures from France and the Federal Republic of Germany, tariff levels have been reinstated on a number of items'.[330] The Commission writes in 'Euratom's Future Activities' in 1969:

So far, however, the nuclear industry, like most of the advanced technology industries, has in fact reaped practically no benefits from the Common Market. Although a large market is essential in these sectors, even more than in the traditional ones, in order to permit concentration and specialization, the removal of customs duties has not had the effect of throwing open the national frontiers, the growth of these industries still depending far more on government action than on market forces. [...] it was easier to export to non-member countries than to sell to electricity producers in the other Member States.[331]

The Member States' 'buy national' policies were probably the main obstacle to the functioning of the nuclear common market.[332] This was, however, not a

[328] Polach, EURATOM, p. 170. Polach further recognised that the abolition of customs and quota restrictions on nuclear products had been reflected in the foreign trade figures by a considerable rise in the traffic in these products both within the Community and with non-member countries.
[329] Seventh General Report on the Activities of the Community (March 1963 to February 1964).
[330] Scheinman, 'Euratom: Nuclear Integration in Europe', 16.
[331] Euratom's Future Activities, COM(1969) 350 final, Bulletin of the European Communities, Supplement No. 6, 30 April 1969, p. 8. The Commission further notes: 'In such a field, however, where the governments have committed and are still committing themselves to substantial expenditure, and which is particularly sensitive from the standpoint of policy, it is desirable and sensible to envisage a harmonious development of the whole electrical engineering, and more especially nuclear, industry in the Community. […] Simply throwing the market open and inviting competition without any consideration of nationality would unquestionably lead to disruptions that must be avoided. […] That is why the only way to reconcile the dismantlement of market barriers with harmonious development of the Member States' industries is by forming transfrontier combinations of firms. Reorganisation on a multinational basis is the essential condition for both the practical realization of the common market and the development of healthy condition.'
[332] Droutman mentions, as an example, a contract for a Dutch purchase of a West German light-water reactor in 1969, which included an obligation that 73% of the reactor parts were to be built in the Netherlands. In order to counterweight such policies, the Commission encouraged the formation of multi-national consortia ('forming transfrontier combinations of firms'). See Droutman, Nuclear Integration, pp. 54 and 148, and the footnote above.

problem limited to the nuclear common market; until the Single European Act (SEA) in 1986, the general EEC common market was also regarded as a failure. The realisation that the common market[333] did not work as expected made Jacques Delors come up with his plan for the single market,[334] which resulted in the Commission's famous White Paper on Completing the Single Market. A separate document was later drawn up for the energy market,[335] which included some discussion on nuclear energy. The Internal Energy Market document (which was published in 1988 – after the Chernobyl accident), states that '[t]he different sensitivities which exist between Member States with regard to nuclear questions have had an effect on the development of different national regulations in this area, creating therefore certain barriers to the internal market'. The document also listed potential obstacles within the nuclear energy sector and some priorities in the nuclear energy sector.

What about the nuclear common market today? One measure that may point to the success of the nuclear common market is the fact that no cases have reached the Court and that the Commission has not seen the need to intervene. Unfortunately, it has not been possible in the framework of this dissertation to clarify whether this is a sign of that the market works effectively or whether national barriers are, in fact, silently accepted.

A final point to make is that the Euratom Treaty does not contain any provisions equivalent to Article 114 or Article 115 TFEU. These provisions are based on 'negative integration', which means eliminating barriers to trade.[336] Negative integration refers to measures that are increasing market integration by the elimination of national constraints on trade and distortion on competition. This is contrasted to 'positive integration', which refers to the establishment of common policies that shape the market conditions. It often implies

[333] The EEC 'common market' also changed names to the 'internal market'. Such a change was not made in the Euratom Treaty. It is still named the 'Nuclear Common Market'.
[334] In the White Paper on 'Completing the Single Market' COM(1985) 310, the Commission identified three principal obstacles: 1) physical barriers, 2) Technical barriers, 3) Fiscal barriers. The White Paper also identified 300 measures to complete the Single Market. The SEA had provided the means to meet the objectives, and it set a new deadline by which the Single Market was to be achieved.
[335] 'Working Document on the Internal Energy Market', COM(1988) 238.
[336] On 'positive integration' and 'negative integration', see e.g., Fritz W. Scharpf, *Governing in Europe: Effective and Democratic?* (Oxford: Oxford University Press, 1999).

approximation of laws and standards. The discussion so far shows that the Euratom is largely an organisation on 'positive' integration. Scharpf explains why this matters:

> The main beneficiary of supranational law has been negative integration. Its basic rules were already contained in the primary law in the Treaties of Rome. Liberalization could be extended, without much political attention, through interventions of the European Commission against infringements of Treaty obligations, and through decisions and preliminary rulings of the European Court of Justice. By contrast, positive integration depends upon the agreement of national governments in the Council of Ministers; it is thus subject to all of the impediments facing European intergovernmental policy-making. This fundamental institutional difference is sufficient to explain the frequently deplored negative and positive in EC policy-making.[337]

According to Scharpf, 'the main beneficiary of supranational law has been negative integration'. So if the Euratom is an organisation of positive integration, this could explain why the Euratom did not succeed in the same way as the EEC; it has simply been too difficult to agree on nuclear industrial development.

3.7 Competition Law and State Aid

We shall now examine the question of whether the provisions on competition and State aid apply to the nuclear sector. The Euratom Treaty itself does not contain any such provisions. Thus, this is a 'gap' in the Euratom Treaty. The question is whether the TFEU can apply in the alternative or whether the nuclear sector is shielded from these provisions. We shall first discuss the application of the competition rules and then the State aid rules.

3.7.1 Competition Law

Does the absence of competition rules in the Euratom Treaty call for an application of the rules in the TFEU to the nuclear sector? Among scholars in the competition or energy competition field, the prevailing view is that competition rules apply.[338] For Johnston and Block, '[t]here seems to be no reason why the

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[337] Fritz W. Scharpf, in Gary Marks, Fritz W. Scharpf, Philippe C. Schmitter, and Wolfgang Streeck (eds.), *Governance in the European Union* (Sage: London, 1996), p. 15.

[338] See for example, Angus Johnston and Guy Block, *EU Energy Law* (Oxford: Oxford University Press, 2012); Nicole Ahner, Jean-Michel Glachant and Adrien de Hauteclocque, 'Legal Feasibility of Schengen-like Agreements in European Energy Policy: the Cases of Nuclear Cooperation and Gas Security of Supply', *EUI Working Papers*, RSCAS 2010/43; European Parliament resolution of

EU Law rules on mergers and antitrust [...] are not applicable to the nuclear energy sector: nothing in the Euratom Treaty would seem to conflict with this conclusion'.[339] But there are some arguments against such an application.

One might argue that the absence of competition rules in the Euratom Treaty was intentional. Nuclear energy involves high-capital intensity and technological and market uncertainty. There are only a limited number of players in the nuclear industry in comparison to the 'conventional' energy sector, which results from the 'inherent nature of the nuclear fuel-cycle industry'. In other words, nuclear energy requires different rules.[340] Yet, another argument is that the competition rules only seek to apprehend an existing industry, not a nascent one. Indeed, when the Euratom Treaty was adopted, the nuclear industry was in its infancy and competition was not a preoccupation of the Treaty founders[341]; the nuclear industry would be vertically structured, as opposed to the horizontally organised national industries under the EC Treaty. But although the nuclear industry can no longer be described as 'nascent', the Treaty text has not changed.

Cusack argues that the Euratom Treaty's supply provisions prevent an application of competition rules.[342] We examined the supply provisions in the beginning of this chapter. The provisions seek to ensure the 'equal access' to sources of supply. The objective of the competition rules is fundamentally different; they seek to prevent, restrict, and distort competition within the common market. But Cusack does not suggest a complete shielding of the nuclear

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10 May 2007 on Assessing Euratom — 50 Years of European nuclear energy policy (2006/2230(INI)), para 23; Miguel Sousa Ferro, 'Competition Law and the Nuclear Sector: An EU Outlook' (2010) 86 *Nuclear Law Bulletin* 13–28.

[339] Johnston and Block, EU Energy Law, p. 384.

[340] See also Faull and Nikpay on the fact that nuclear energy is characterised by 'specific features' that have implications for the application of competition rules: 'Indeed nuclear reactors are generally considered to operate most efficiently if used continuously and at relatively steady capacity. This technical feature provides a basis for nuclear electricity generators to try to ensure a constant and steady production. The most straightforward scenario for doing so is to enter into long-term supply contracts covering an optimised production level for the plant in question. As in the Scottish Nuclear case, and assuming that the company concerned has some price setting power, such long-term supply agreements will only be acceptable if the entire production is not sold on an exclusive basis to a dominant downstream supplier, but rather to a series of downstream competitors'. Jonathan Faull and Ali Nikpay (eds.), The EC Law of Competition (Oxford: Oxford University Press, 2007), p. 1365.

[341] See also Grunwald, Das Energierecht der Europäischen Gemeinschaften, pp. 235–8.

[342] See Cusack, 'A Tale of Two Treaties'.

industry from the competition rules.[343] In his view, the supply provisions do not exclude the application of competition rules to vertical transactions that are *not* supply contracts, such as joint ventures and mergers.

But already in the 1970s, the Commission applied competition rules to the nuclear sector. The Commission decided to grant exemptions to the agreements in issue.[344] Slot explains:

> These decisions show that the Commission is willing to stretch the requirements of Art. 85(3) quite far to grant exemptions in this, admittedly very special, market. The agreements related to coordination of investment, joint selling and transport. In particular, the agreements seriously reduced competition.

Cusack's argues that as these agreements did not concern the supply of nuclear materials, the Commission decisions did not support the view that competition rules are generally applicable to nuclear supply commitments.[345] However, in 1996, UK operators started to notify the Commission also on supply contracts in the nuclear sector. According to Grunwald, these Commission decisions were a manifested 'error'.[346]

It should also be noted that the application of competition rules came very late to the general energy sector. Slot explains that the Commission extended only after hesitation the drive towards the internal market to the energy sector.[347] The drive came even later to the nuclear sector. Slot points out that 'in view of the

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[343] Cusack explains: '[I]t cannot be assumed that there is, in law, total exclusion of the EC competition rules in what may be called "the Euratom sphere"'. See ibid., 136.
[344] Commission Decision of 23 December 1975 Relating to a Proceeding under Article 85 of the EEC Treaty (United Reprocessers GmbH), OJ 1976 No. L51, p. 7. Commission Decision of 23 December 1975 relating to a proceeding under Article 85 of the EEC Treaty (KEWA), OJ 1976 No. L51, p. 15.
[345] Cusack argues that 'it was a matter of investment by way of setting up a joint venture in the domain of reprocessing of irradiated nuclear fuel and, as such, was not a matter of supply of nuclear materials governed by Chapter 6 of the Euratom Treaty. This decision may not, therefore, be considered authority for the view that the EC competition rules are generally applicable to nuclear supply commitments', Cusack, 'A Tale of Two Treaties', 137.
[346] Grunwald, Das Energierecht des Europäischen Gemeinschaften, p. 238. See in particular, footnote 238, referring to Notice pursuant to Article 19 (3) of Council Regulation No 17 concerning Case No IV/E-3/35.875 - Nuclear Electric plc/British Nuclear Fuels plc, OJ 1996 C89, p. 4; and Notice pursuant to Article 19 (3) of Council Regulation No 17 concerning Case No IV/E-3/35.876 - Scottish Nuclear Ltd/British Nuclear Fuels plc, OJ 1996 No. C89, p. 6.
[347] Piet Jan Slot, 'Energy and Competition' (1994) 31 *Common Market Law Review* 511–47 at 511; Johnston and Block, EU Energy Law, p. 7.

political sensitivity of this area, it is not surprising that, again, there are few Commission decisions applying [the competition rules]'.[348]

So, in practice, competition rules now apply to the nuclear sector.[349] As Johnston and Block point out, the Commission has analysed long-term and exclusive contracts in the nuclear industry under the competition rules in a line of cases.[350] Moreover, the Commission has declared that nuclear pools in the important area of nuclear insurance are acceptable under competition rules.[351] Nevertheless, the application of competition rules to the nuclear sector is still an open issue. Obviously, the Commission's practice cannot modify primary law.[352] For reasons of legal certainty, the potential application of competition rules to supply contracts should be clarified by a treaty change or by the Court.

3.7.2 State Aid

We shall now turn our attention to State aid. The questions that we will address are similar to the questions in the foregoing section on competition law. The Euratom does not contain any rules on State aid. Can the provisions in the TFEU apply to the nuclear sector (Article 107 to 109 TFEU)? Or is the nuclear sector is excluded from State aid discipline[353]?

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[348] Slot, 'Energy and Competition'; Johnston and Block, EU Energy Law, p. 521.

[349] See, for example, the Merger Regulation, which applies to the nuclear sector. Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings, OJ 2004 No. L24, 29 January 2004, p. 1. See also Faull and Nikpay, The EC Law of Competition, p. 1365, referring to Case M. 3099 *Areva/Urenco* (2004); and Ivo Van Bael, *Competition law of the European Community* (Alphen aan den Rijn: Kluwer Law International, 2010), p. 1512.

[350] For Johnston and Block, the rules in the Third Energy Package will apply to the nuclear sector. Johnston and Block, EU Energy Law, p. 384. See for example, Commission Decision 91/329/EEC of 30 April 1991 relating to a proceeding under Article 85 of the EEC Treaty (IV/33.473 - Scottish Nuclear, Nuclear Energy Agreement), OJ 1991 No. L178, 6 July 1991, p. 31. For more examples, see Nicole Ahner, Jean-Michel Glachant and Adrien de Hauteclocque, 'Legal Feasibility of Schengen-like Agreements in European Energy Policy: the Cases of Nuclear Cooperation and Gas Security of Supply', EUI Working Papers, RSCAS 2010/43, p. 13.

[351] See the cases Svenska Atomförsäkringspoolen (COMP/37.363); Pool Italiano Rischi Atomici (COMP/34.985); and Aseguradores Riesgos Nucleares (COMP/34.558).

[352] See Case C-327/91, *France* v. *Commission* [1994] ECR I-3641, para 36: '[I]n any event, a mere practice cannot override the provisions of the Treaty'.

[353] Article 107 TFEU defines State aid as 'any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods […] in so far as it affects trade between Member States'. Such aid shall be incompatible with the internal market. There are some important exemptions, where aid may be considered to be compatible with the internal

First, what explains the absence of State aid rules in the Euratom Treaty? Of the three original Treaties, only the Euratom did not contain State aid rules. The now repealed ECSC Treaty contained an explicit and absolute prohibition of State aids.[354] The EEC Treaty contained specific derogations from State aid rules for agriculture and transport. Cusack argues that the absence of State aid rules in Euratom must therefore be intentional.[355] But Cusack takes a rather cautious position on whether the provisions in the EU Treaties can apply to the nuclear sector. He recommends making a distinction between 'operating aids', i.e., aids for operating nuclear stations ('at any stage in the nuclear fuel cycle'), and 'investment aids'. In Cusack's view, 'operating aids' should be subject to State aid rules. For 'investment aids', this should, in his view, be a question that merits serious economic examination, especially in the light of the progressive liberalisation of the internal market in electricity generation.[356]

Hancher adopts a normative argument, contending that excluding 'now a "mature" sector of the economy of a number of Member States from any form of state aid discipline whatsoever would seem to furnish that sector with a considerable advantage over and above other competing fuel forms which are subject to the full discipline of the EC Treaty rules'. Hancher also argues that it

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market. One of them concerns so-called sectoral aid, that is, 'aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest' (Article 107.3(c) TFEU). For an overview, see Leigh Hancher, 'Sectoral Aid Introduction', in Leigh Hancher, Tom Ottervanger, and Piet Jan Slot (eds.), *EC State Aids* (London: Sweet and Maxwell, 2006), pp. 279–91.

[354] Article 4c ECSC. Further, Article 54(5) ECSC provided that 'if the High Authority finds that the financing of a programme or the operation of the installations therein planned would involve subsidies, aids, protection or discrimination contrary to this Treaty, the adverse opinion delivered by it on these grounds shall have the force of a decision within the meaning of Article 14 and the effect of prohibiting the undertaking concerned from drawing on resources other than its own funds to carry out the programme'.

[355] Cusack argues: '[T]he proposition that the general State aids rules of the EC Treaty could apply across the board and without modulation to the (then, in 1958) nascent nuclear industry, whereas they would be modulated in their application to certain existing industries (so as to accommodate the particular needs of those industries) is hardly convincing and therefore was unlikely to have been the intention of the authors of both Treaties. This alone would explain the absence of a State aids code in the Euratom Treaty, an absence which is evidence neither of oversight nor of intention that those be applied in any way in an area already governed by the Euratom Treaty'. See Cusack, 'A Tale of Two Treaties', pp. 131–2. See also Grunwald, finding support for this argument in Protocol of Agreement on energy problems, reached between the Governments of the Member States of the European Communities at the 94th meeting of the Special Council of Ministers of the European Coal and Steel Community held on 21 April 1964 in Luxembourg, OJ 1964 No. 69, 30 April 1964, p. 1099. See Grunwald, Das Energierecht der Europäischen Gemeinschaften, pp. 234–9.

[356] Cusack, 'A Tale of Two Treaties', 133.

'would make something of a nonsense of the concept of a single European electricity market, a concept which is predicted on competition between all forms of electricity, irrespective of the source of their generation'.[357] Cusack counters this argument by saying that it cannot be maintained that 'the passage of time or the evolution and expansion of the nuclear industry can possibly operate to amend or change the legal position'.[358]

Could the application of the State aid rules amount to a derogation of the Euratom provisions under the 'shall not derogate' clause in Article 106a Euratom? Cusack argues that the existence of the Euratom provisions on Investment as well as the provisions on Joint Undertakings impede the application of the State aid rules. Let us first consider the provisions on 'Investment' (Title II, Chapter 4, Articles 40 to 44). As explained, these provisions oblige persons and undertakings to communicate to the Commission their investment projects 'relating to new installations'. Cusack argues that the Commission's consultative functions appear to exhaust its powers in this area.[359] Similarly, Faull and Nikpay acknowledge that the investment provisions could be a problem in applying State aid rules. In their view, however, the investment provisions do not 'constitute a sufficient basis for excluding the application of EC State aid rules altogether'.[360] Indeed, it is hard to see exactly how the investment provisions would be incompatible with the State aid provisions as they are merely about communication of investment information.

Cusack also argues that the Euratom provisions on 'Joint Undertakings' (Title II, Chapter 5, Articles 45 to 51 Euratom) can hinder an application of the State aid rules. A 'Joint Undertaking' is a legal status granted to undertakings that fulfil certain requirements. An undertaking can be established as a 'Joint Undertaking'

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[357] Hancher, 'State aid in the Energy Sector' in Leigh Hancher, Tom Ottervanger, and Piet Jan Slot (eds.) *EC State Aids*, (London: Sweet and Maxwell, 2006), pp. 457–92. See also Christopher Jones (ed.) *EU Energy Law: EU competition law & energy markets* (Leuven: Claeys & Casteels, 2007), pp. 557–66.

[358] Cusack, 'A Tale of Two Treaties', 130.

[359] Cusack concludes: 'It is, accordingly, difficult to conceive of the Commission's being authorized to deal with such cases under the rules of both Treaties, nor is there any evidence that such was the intention of the authors of the two Treaties. If so, then it would be legitimate to conclude that the Euratom Treaty delimits and exhausts the Commission's powers in this area'. Ibid., 132.

[360] Faull and Nikpay, The EC Law of Competition, p. 1365.

if it is of 'fundamental importance to the development of the nuclear industry' (Article 45).[361] The Council may make applicable certain advantages, listed in Annex III to the Euratom Treaty. The advantages involve, *inter alia*, exemption from direct taxes. There are only a few such Joint Undertakings established.[362] One example is ITER, which was established as a Joint Undertaking in 2007.[363] Cusack argues that these advantages are to be treated as State aids within the meaning of the EC Treaty if they are scrutinised pursuant EC Treaty rules.

There are several arguments against this view. A Council Decision on a Joint Undertaking could be regarded as 'replacing' a Commission Decision on (allowing) State aid. It could also be seen as an addition to one of the exemptions from the State aid rules (although this would not take the form of primary law). Moreover, the very existence of the rules on Joint Undertakings could be interpreted as meaning that the State aid rules in fact apply to nuclear energy; what would otherwise be the point of a centralised procedure if the Member States were to be allowed to grant tax advantages, as they wish? The rules could also be seen as a centralised protection of a certain industry from Member States'

[361] It is the Council that establishes a Joint Undertaking (Article 49 Euratom). Joint Undertakings may also be established under Article 187 TFEU, but the purpose is different: '[t]he Union may set up joint undertakings or any other structure necessary for the efficient execution of Union research, technological development and demonstration programmes'. The Council shall also establish Joint Undertakings under the EU Treaties, after consulting the European Parliament and the Economic and Social Committee (Article 187 TFEU). While Euratom undertakings have to be of 'fundamental importance to the development of the nuclear industry', the EU undertakings only have to be 'necessary for the efficient execution of Union [research programmes]'. Although already introduced by the SEA, the first Joint Undertaking was not established until 2002: the Galileo undertaking. The aim is to 'ensure the unity of the administration and the financial control of the project for the research, development and demonstration phase of the Galileo programme, and to this end mobilise the funds assigned to that programme'. See Council Regulation (EC) No 876/2002 of 21 May 2002 setting up the Galileo Joint Undertaking, OJ 2002 No. L138, 28 May 2002, p. 1.

[362] Council Decision 2007/198/Euratom of 27 March 2007 establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it, OJ 2007 No. L90, 30 March 2007, p. 58; Council Decision 78/471/Euratom of 30 May 1978 on the establishment of the Joint European Torus (JET), Joint Undertaking, OJ 1978 No. L151, 7 June 1978, p. 10); Council Decision 75/328/Euratom of 20 May 1975 on the establishment of the Joint Undertaking 'Schnell-Brüter- Kernkraftwerksgesellschaft mbH' (SBK), OJ 1975 No. L152, 12 June 1975, p. 8; Council Decision 74/295/Euratom of 4 June 1974 on the establishment of the Joint Undertaking Hochtemperatur-Kernkraftwerk GmbH (HKG) OJ 1974 No. L165, 20 June 1974, p. 7; Euratom Council Decision on the establishment of the 'société d'energie nucléaire franco-belge des Ardennes' Joint Undertaking, English special edition: Series I Chapter 1959–1962, p. 72.

[363] Another example is the Hochtemperatur-Kernkraftwerk GmbH (a German High Temperature reactor). In 2011, the Council decided to extend the advantages to that Joint Undertaking. This included certain tax advantages. Council Decision 2011/374/Euratom of 17 June 2011 on extension of the advantages conferred on the joint undertaking Hochtemperatur-Kernkraftwerk GmbH (HKG), OJ 2011 No. L168, 28 June 2011, p. 8.

eagerness to gain tax revenue. In brief, Cusack's argument is not very convincing. All things considered, we cannot agree with Cusack that an application of the State aid rules would amount to a derogation under Article 106a Euratom.

3.7.2.1 The Transparency Directive Case

It should be pointed out from the outset that the ECJ has never clarified the relationship between the Euratom Treaty and the State aid rules. The issue was only briefly touched upon in Joined Cases 188–190/80,[364] where France, Italy and the UK had brought actions to declare void a Commission Directive on the Transparency of financial relations between Member States and public undertakings (the 'Transparency Directive').[365] The Directive was adopted on the basis of Article 90(3) EEC. It required the Member States to keep available information concerning public funds made available by public authorities to public undertakings. The objective was to promote the application to public undertakings of the provisions in Articles 92 and 93 EEC on State aids.

The submissions (by France, Italy and the UK) relied, *inter alia*, upon failure to respect the rules defining the scope of the EEC, ECSC and the Euratom Treaty.[366] France claimed (alternatively) that the Directive should be declared void in so far as it covers undertakings within the purview of the ECSC and the Euratom Treaties. France contended that the Directive's definition of public undertakings was 'totally general in character'.[367] The Directive laid down an exception concerning certain public undertakings in the energy sector, including the nuclear energy sector.[368] According to France, save for that exception, it could be inferred that the Directive was to apply to public undertakings covered by all three Treaties. France claimed this was inconsistent with the principle of the

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[364] Joined Cases 188–190/80, *French Republic, Italian Republic and United Kingdom of Great Britain and Northern Ireland* v. *Commission of the European Communities* [1982] ECR 2545 (hereinafter, the 'Transparency Directive Case').
[365] Commission Directive No. 80/723/EEC of 25 June 1980 on the transparency between Member States and public undertakings, OJ 1980 No. L195, p. 35.
[366] *Transparency Directive* Case, paras 28–32.
[367] Ibid., para 28.
[368] Article 4 read: This Directive shall not apply to […] (b) public undertakings, as regards activities carried on in any of the following areas: - water and energy, including in the case of nuclear energy the production and enrichment of uranium, the re-processing of irradiated fuels and the preparation of materials containing plutonium.

functional separation of the three Community Treaties and that a measure of secondary law adopted within the framework of the EEC Treaty could not regulate a matter covered by positive rules in the other treaties.

The Commission admitted that under the 'shall not affect' clause in Article 232(1) EEC and due to the existence of State aids rules in the ECSC Treaty, the Directive could not apply to undertakings under the ECSC Treaty. The Euratom Treaty, however, did not contain provisions on State aids. The Commission was of the opinion that 'Articles 92 and 93 of the EEC Treaty and hence the Directive are applicable to undertakings within that sector [the nuclear sector], subject to the exceptions expressly provided for in Article 4 of the Directive'.[369]

AG Reischl held in his Opinion that 'in the EAEC Treaty […] there are no rules comparable to Articles 92 to 94 of the EEC Treaty. Consequently, as part of the EEC Treaty which aims at total economic integration, those provisions must in principle also apply to EAEC undertakings'.[370] He explained:

> On account of the connection between Articles 90 and 92 et seq, it is then only logical that the former provision must also be applied in the field of the EAEC Treaty. Therefore, it had to be expressly provided in the directive that the requirement of transparency was not to apply to the financial relations between the public authorities and the EAEC undertakings referred to therein.[371]

The Court first addressed the EEC-ECSC relationship. It noted that according to 232(1) EEC (i.e., the 'shall not affect' clause, later renumbered to Article 305 EC), the provisions of the EEC Treaty were not to affect the provisions of the ECSC Treaty, in particular as regards the rights and obligations of Member States, the powers of the institutions of that Community and the rules laid down by that Treaty for the functioning of the common market in coal and steel. The Court then found that Article 90(3) EEC (on which the Directive was based) concerned the powers of the institutions and that the contested Directive imposed obligations on Member States in the sphere of state aid. It noted that the ECSC Treaty itself contained rules affecting Member States and undertakings operating

[369] *Transparency Directive* case, para 29.
[370] Ibid., Opinion of AG Reischl.
[371] Emphasis omitted.

on the market in coal and steel. The Court held that it followed directly from the 'shall not affect' clause that the Directive could not apply to relations with undertakings in the area of the ECSC. According to the Court, however, this was no ground for invalidation of the Directive – 'although it would undoubtedly have been preferable in the interest of legal clarity if the exclusion of those undertakings had been apparent from the actual terms of the directive'.

The Court then addressed the Euratom-EC relationship. It pointed out that 232(2) EEC 'merely' stated that the provisions of the EEC Treaty were 'not to derogate' from the Euratom Treaty. The Court then held that the submission could not be accepted, as France had not established that the Directive provisions derogated from the Euratom Treaty provisions.[372]

It seems that the Court wanted to establish a difference between 'shall not affect' and 'shall not derogate' (Article 232 EEC). However, the Court did not draw attention to the fact that the Euratom Treaty does not contain State aid rules. If the Euratom Treaty had contained its own State aid rules, would this have been a ground for invalidation of the Directive? It is important to point out that the Court did not clarify that the State aid provisions would generally apply to Euratom undertakings; it simply stated that the Directive could not be declared void as far as it covers undertakings in the nuclear sector, because France had not established that the Directive derogated from the Euratom Treaty provisions.

In 1985, the Transparency Directive was amended. The exception for public undertakings in the energy sector was dropped.[373] Regarding the ECSC Treaty, the Directive preamble repeated the Court's reasoning from the *Transparency Directive* case:

> Whereas by virtue of Article 232(1) of the EEC Treaty the provisions of that Treaty shall not affect those of the ECSC Treaty; whereas the ECSC Treaty contains special provisions governing the obligations of Member States as far as public undertakings and aid are concerned; whereas Article 90 of the EEC Treaty is therefore inapplicable to public undertakings carrying on activities coming under the ECSC Treaty.

[372] *Transparency Directive Case*, para 32.
[373] Commission Directive 85/413/EEC of 24 July 1985 amending Directive 80/723/EEC on the transparency of financial relations between Member States and public undertakings OJ 1985 No. L229, 28 August 1985, p. 20.

When it came to the Euratom, the EU legislator was surprisingly bold – especially in light of the Court's rather cautious conclusion in the *Transparency Directive* case. The Directive preamble states:

> Whereas by virtue of Article 232(2) of the EEC Treaty the provisions of that Treaty shall not derogate from those of the Euratom Treaty, but whereas the latter does not contain any special provisions on public undertakings or aid; whereas Article 90 of the EEC Treaty therefore applies to the nuclear energy field.[374]

This is a particular interpretation of the 'shall not derogate' clause, meaning that since the Euratom Treaty is silent as far as State aid is concerned, there is no derogation and the EEC Treaty rules can apply. As explained, this was *not* what the Court held in the *Transparency Directive* case. The amended Directive has, however, remained unchallenged.

3.7.2.2 Commission Decisions on State Aid

Let us now examine some cases where the Commission has applied State aid rules to the Euratom Treaty. The first case deals with the decommissioning of the Ignalina power station. Lithuania had committed under the Accession Treaty to close and subsequently decommission two units of this power plant. The Union had decided to support the financial burden of the decommissioning procedure, which is generally extremely costly. The Union had also decided to declare certain public aid compatible with the internal market under the EC Treaty. To that end, rules were inserted in 'Protocol No 4 on the Ignalina Nuclear Power Plant in Lithuania to the Accession Treaty'.[375] The rules provided that measures had to be assessed on a case-by-case basis. Thus, primary law (in the form of a protocol) now stated that State aid rules would apply to nuclear energy (and that

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[374] The preamble of the Directive states that for what regards the ECSC Treaty: 'Whereas by virtue of Article 232 (1) of the EEC Treaty the provisions of that Treaty shall not affect those of the ECSC Treaty; whereas the ECSC Treaty contains special provisions governing the obligations of Member States as far as public undertakings and aid are concerned; whereas Article 90 of the EEC Treaty is therefore inapplicable to public undertakings carrying on activities coming under the ECSC Treaty'.

[375] See Article 2.8 of the Protocol, attached to Treaty of Accession of the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia (2003), OJ 2003 No. L236, 23 September 2003, p. 17. Under the protocol, public aid provided for enhancing the security of energy supply was also considered compatible with the internal market. See Article 2.9 of the Protocol.

there would be an exemption from those rules). Accordingly, the Commission later decided not to raise any objections on tax exemptions provided to facilitate the decommissioning of Ignalina's Nuclear Power Plant.[376]

Another case concerns the restructuring aid granted by the UK government to British Energy. The Commission opened a procedure in 2003.[377] The Commission recognised that '[a]t least part of the measures in question concern issues covered by the Euratom Treaty and therefore have to be assessed accordingly'.[378] It also held that 'to the extent that they are not necessary for or go beyond the objectives of the Euratom Treaty or distort or threaten to distort competition in the internal market, they have to be assessed under the EC Treaty'.[379] The measures that concerned issues covered by the Euratom Treaty included reprocessing, storage and disposal of spent fuel, decommissioning nuclear power stations which would be assumed by the UK government, and the renegotiation of nuclear fuel supply arrangements by British Energy with British Nuclear Fuels Ltd (BNFL), a publicly owned company.

The UK was of the view that the measures should be assessed under the Euratom Treaty, because the aims were to preserve the safety of nuclear installations, ensure the safe management of nuclear liabilities, enhance the security of supply, and avoid carbon dioxide emissions. The Commission noted that the UK authorities had:

> [D]ecided to intervene in support of British Energy, *inter alia*, with a view of ensuring the continuity of the conditions for a safe and secure nuclear industry, whereas at the same time maintaining in functioning the nuclear plants as an extensive energy resource. This intervention has taken place in a context of risk of bankruptcy of the major UK nuclear operator.[380]

[376] Case N 337/2005, OJ 2006 No. C162, 13 July 2006, p. 9. The Commission concluded that the aid was to be considered compatible with the provisions of Protocol No 4 of the Accession Treaty, and consequently, with the common market.
[377] Commission Decision of 22 September 2004 on the State Aid which the United Kingdom is planning to implement for British Energy plc, 2005/407/EC, OJ 2005 No. L142, 6 June 2005, p. 26, paras 240–5, and 326.
[378] Ibid., para 239.
[379] Ibid.
[380] Ibid., para 241.

The Commission had to determine whether the measures in issue were necessary or fell within the objectives of the Euratom Treaty.[381] It concluded that the measures were 'appropriate to address the combination of objectives pursued and which are fully endorsed by the Euratom Treaty',[382] and that 'insofar as they fulfil the guidelines in respect of restructuring aid and are in line with the objectives of the Euratom Treaty, the aids in question are compatible with the common market'.[383]

In another case from 2004, the Commission opened an investigation concerning the establishment of the Nuclear Decommissioning Authority (NDA) in the UK.[384] The NDA is a public body, created to manage the decommissioning of public sector nuclear assets. The ownership of certain nuclear sites and financial assets belonging to the publicly owned BNFL would be transferred to the NDA. As the NDA would not be able to fund its activities completely, the state would have to cover any shortfall.

The Commission found that the measures constituted State aid. The question was if the aid could be justified. The Commission examined, in light of the Euratom Treaty's objectives, whether the aid was compatible in direct application of Article 107.3(c) TFEU, i.e., the exemption of so-called sectoral aid ('aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest').[385] The Commission were also to examine whether 'the positive impact of the aid on fulfilling the objectives of the Euratom Treaty outweighed its negative impact on competition in the internal market'.[386] So, instead of examining whether the EC Treaty provisions were to 'derogate' from the Euratom Treaty (as provided in the 'shall not derogate clause'

[381] Ibid., para 243.
[382] Ibid., para 245.
[383] Ibid., para 489.
[384] Commission Decision of 4 April 2006 on the State Aid which the United Kingdom is planning to implement for the establishment of the Nuclear Decommissioning Authority (notified under document number C(2006) 650), OJ 2006 No. L268, 27 September 2006. On the Euratom Treaty, see paras 79–84.
[385] It should also be pointed out that the Commission expressed doubts that the aid was compatible under the guidelines on State aid for environmental protection and the guidelines on State aid for rescuing or restructuring firms in difficulty.
[386] Commission Decision of 4 April 2006, para 34.

in what is now Article 106.a Euratom), the Commission decided to test the balance between the positive impacts on fulfilling the Euratom Treaty objectives and the negative impacts on competition in the internal market.[387]

The Commission came to the conclusion that on balance it 'considers that the distortion of competition resulting from the measure is outweighed by the positive contribution of the Measure to the achievement of the Euratom Treaty objectives'.[388] It noted that the financial support granted to the NDA was designed to facilitate Euratom Treaty's objectives,[389] and that the UK had decided to create and fund the NDA 'to ensure the correct establishment of a process of decommissioning and management of the wastes that would adequately protect the health and safety of the workers and the population'. The Commission found that the UK had addressed its obligations under the Euratom Treaty to provide for safe and adequately provisioned decommissioning which was compatible with the objectives of the Euratom Treaty. The Commission also concluded that '[i]nsofar as this aid is in line with the objectives of the Euratom Treaty and does not affect competition to an extent which is contrary to the common interest, the Measure in question is compatible with the common market'.[390]

3.7.3 Reconciling Competition and State Aid with the Euratom's 'General Scheme and Spirit'

As this brief overview shows and as Hancher also explains, in its decisions relating to State aid to the nuclear sector, the Commission has been careful to *avoid* arriving at a definitive position on the relationship between the Euratom Treaty and the EU Treaties.[391] The Commission has either declared that a

[387] The Commission reiterated the statement from its 2003 decision: 'to the extent that it is not necessary for or goes beyond the objectives of the Euratom Treaty or distorts or threatens to distort competition in the internal market, it has to be assessed under the EC Treaty'. Both the Euratom Treaty and the EC Treaty thus had to be examined. The Commission stated that it was appropriate to address the combination of objectives pursued. Para 84.
[388] Commission Decision of 4 April 2006, paras 192, 206, 213, 217 and 223.
[389] Ibid., para 82.
[390] Ibid., para 228.
[391] Hancher, 'State aid in the Energy Sector', p. 459.

contested measure is 'not aid',[392] or has found the aid justified (i.e., that the aid is compatible with the exemption in Article 107.3(c) TFEU).[393] The cases show that the Commission is careful in taking the Euratom Treaty objectives into account when deciding if a measure constitutes compatible State aid.[394] We shall add that these cases mainly concern 'nuclear safety'. In light of the Commission's efforts (especially at that time) to adopt EU legislation on nuclear safety, this outcome is, however, not very surprising.[395] The question is how the Commission would act if the objective of a Member State measure would be to 'promote the nuclear industry' instead?[396]

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[392] One example is the guarantee provided by France in connection with the construction by AREVA NP of the nuclear power station Teollisuuden Voima Oy in Finland. The Commission did not consider this to be State aid. See Commission Decision of September 2007 on Measure No C 45/2006 (ex NN 62/A/2006) implemented by France in connection with the construction by AREVA NP (formerly Framatome ANP) of a nuclear power station for Teollisuuden Voima Oy. Note also Commission Decision C(2001) 3967 final of 11 December 2001, where the Commission declared that the German tax exemption scheme applied to the reserves established by the operators of nuclear power stations for the purpose of the safe disposal of their radioactive waste and the permanent closure of their plants did not constitute State aid in terms of Article 87(1) EC. On appeal, the CFI dismissed the action as unfounded. See Case T-92/02 *Stadtwerke Schwäbisch Hall GmbH and Others* v. *Commission* [2006] ECR II-11. For a comment on this case, see Dietmar O Reich, 'No Level Playing Field for Nuclear Power Reserves? Comment on the Judgment in Case T-92/02 of 26 January 2006' (2006) *European State Aid Law Quarterly*, 445–50. See also Case C-176/06 P, *Stadtwerke Schwäbisch Hall GmbH* v. *Commission*, OJ 2008 No. C22, 26 January 2008, p. 8.

[393] Aid C 31/2002 Transitional Regime for the Belgian electricity market, OJ 2002 No. C222, 18 September 2002, p. 2. In this decision, a proposed compensation to dismantle experimental nuclear sites was compatible with the derogation in what is now Article 107.3(c) TFEU. The Commission provided no reasons for this finding, but merely stated: 'Cette décision est sans préjudice des dispositions du traité Euratom'. See also Aid E 3/02 — Aid to Electricité de France (EdF) (Invitation to submit comments pursuant to Article 88(2) of the EC Treaty concerning aid to Electricité de France in the form of the unlimited State guarantee associated with its public enterprise status), OJ 2003 No. C164, 15 July 2003, p. 7, in which the Commission stated: 'La présente décision ne préjuge pas de l'application et du respect des règles du traité Euratom' (para 12).

[394] See also Bjørnebye, Investing in EU energy security, p. 735.

[395] The Commission also investigated the situation of the BNFL. The nuclear sites, which were to be transferred, were approaching the time for decommissioning. The BNFL could then be relieved of charges that it might otherwise have had to bear under the polluter-pays principle (para 32). According to the Commission, the polluter-pays principle thus applies to nuclear liabilities. This means that operators of nuclear plants have to cover the decommissioning costs for their reactors. However, the Commission could not show that that the BNFL had not complied with the polluter-pays principle, and concluded therefore that the measure did not involve state aid to BNFL (para 228).

[396] But note that nuclear plants today are generally being built without subsidies. The most recent Nuclear Illustrative Programme (2007) points out: 'nuclear plants are generally being built without subsidies, which is an indication that nuclear energy is increasingly perceived as competitive. This trend marks a change from past practice in a number of EU countries'. See Communication from the Commission to the Council and the European Parliament – Nuclear Illustrative Programme, COM(2007) 565 final.

Until the Court clarifies its position, this might, at least theoretically, still be regarded as an open question.[397] However, perhaps due to the Commission's rather nuanced approach, the chance that a case would reach the Court is small. We shall add that even Euratom legislation now refers to State aid rules. The most recent Euratom Council Regulation on Participation and Dissemination of Information from 2011 states: 'The Framework Programme should also be implemented in accordance with the State aid rules, in particular the rules on State aid for research and development, currently the Community framework for state aid for research and development and innovation'.[398]

But why do we hesitate in answering the question on the application of State aid rules to the nuclear sector? We have already come to the conclusion that there are no substantive Euratom provisions that hinder such an application. The hesitation concerns the Euratom's 'general scheme and spirit'.[399] According to rules on treaty interpretation in public international law, a treaty is to be interpreted according to its 'object and purpose'. How can we then reconcile Article 1 Euratom, which states that it is the task of Euratom to create 'the conditions necessary for the speedy establishment and growth of nuclear industries' with 'the proposition that the Community could have the power to forbid, brake or otherwise set limits to, national efforts in this direction'?[400]

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[397] See Henrik Bjørnebye, *Investing in EU energy security: exploring the regulatory approach to tomorrow's electricity production* (Alphen aan den Rijn: Kluwer Law International, 2010); Johnston and Block, EU Energy Law, p. 386 ('overlap may exist and the precise nature of the relationship between the TFEU and the Euratom Treaty remains a matter of debate'); and Hancher, 'State Aid in the Energy Sector', p. 458 ('Nuclear energy may remain a special case in that the EC Treaty rules cannot be straightforwardly and directly applied to evaluate aid to this sector').

[398] Council Regulation (Euratom) No 139/2012 of 19 December 2011 laying down the rules for the participation of undertakings, research centres and universities in indirect actions under the Framework Programme of the European Atomic Energy Community and for the dissemination of research results (2012–2013), OJ 2012 No. L47, 18 February 2012, p. 1.

[399] The EU institutions have discussed including nuclear energy in the new guidelines on subsidies for environmental protection and energy, but nuclear energy was eventually left out. This means that State aid to nuclear energy projects will continue to be decided on a case-by-case basis. See Alex Barker and Joshua Chaffin, 'Blow to nuclear projects as Brussels drops plan for subsidy rules', Financial Times, October 8, 2013; and Communication from the Commission: Guidelines on State aid for environmental protection and energy 2014–2020, OJ 2014, No. C200, 28 June 2014, p. 1.

[400] For Cusack, the 'non-derogation' clause 'serves primarily to reinforce the conclusions to be drawn from such an examination'. Cusack, 'A Tale of Two Treaties', 130.

One may argue that in order to properly answer this legal question, we first need to know the economic conditions.[401] Perhaps it would be advantageous to the nuclear industry (as a whole) to apply the State aid and competition rules. But there are certainly cases where the opposite conclusion can be reached. The Euratom's *dirigisme* appears to stand against the market-oriented rationale of the State aid provisions. The Treaty founders should have made clear that they wanted State aid and competition rules to apply. In practice, however, the provisions apply, although there seems to be a general understanding that the Euratom Treaty's objectives should be taken into account. This is not a very satisfactory solution because it does not provide clarity. To silently accept that the competition rules and the State aid rules apply to the nuclear sector does not provide an answer to the legal question.

3.8 Conclusions

This chapter has examined a broad range of different aspects of nuclear industrial development – the Euratom's most central task. We started this chapter by examining Euratom's 'dirigiste' features (supply, ownership, investment, research, and dissemination of information). We found that they constitute the bulk of the Euratom provisions, but that many of them are only applied in a very 'simplistic' fashion. In other words, the provisions are not applied as broadly as they could be, but more narrowly, and in a way that better fits the political realities of today. For example, the supply provisions provide a more 'centralised' and far-reaching procedure than how they are applied in practice. Some provisions have never been applied. If the Euratom could initially be described as largely *dirigiste*, this is no longer the case. The only area that could still be regarded as having real significance is nuclear research. But as the EU's competence has expanded with each treaty revision and created 'overlaps', it now seems possible to adopt the same measures under the TFEU as under the Euratom Treaty. But it would be equally wrong to say that the Euratom is a 'market-oriented' organisation. The Euratom's only 'market-oriented' provisions

[401] Cusack seems to suggest this in ibid.

are the provisions on the nuclear common market and it is unclear what effect they have.

The chapter also illustrates that there are different kinds of 'gaps', and that there are different solutions to deal with them. One kind of gap can be found among the provisions on the nuclear common market. The Euratom provisions are not as 'exhaustive' as the corresponding provisions in the EU Treaties on the internal market. It was suggested that the EU Treaties should not be used to fill such 'gaps', because this would amount to a breach of the 'shall not derogate' clause in Article 106a Euratom. Another kind of 'gap' can be observed in the area of State aid and competition. The Euratom lacks such provisions. The question is whether the rules in the EU Treaties can apply to the nuclear industry. This kind of gap is much more problematic than the kind of gap we find in the provisions on the nuclear common market as there are no substantive Euratom provisions that could 'trigger' a derogation under the 'shall not derogate' clause. The question is therefore whether the Euratom objectives and 'spirit' can prevent such an application (to create 'the conditions necessary for the speedy establishment and growth of nuclear industries'). There is no clear legal solution to this problem. For the sake of clarity, a treaty change is needed.

Chapter 4: Radiation Protection

In this chapter and the next we consider two policy areas dealing with negative externalities that may occur from the civil use of nuclear energy. This chapter deals with 'radiation protection', which regulates protection of the general public (and, as we shall see, specific groups of the public) from the dangers of ionizing radiation. The following chapter concerns 'nuclear safety'. It largely deals with the control of technical aspects of nuclear installations. Although 'radiation protection' and 'nuclear safety' are dealt with in different chapters, as we shall see, there are some considerable overlaps between these areas. The reason is that nuclear safety is a relatively new policy area. For many years, it was generally understood that the Euratom Treaty's 'Health and Safety' provisions (Title II, Chapter 3) could only be used to adopt legislation on 'radiation protection'. In 2002, the Court expanded the scope of these provisions. It clarified that they can also be used to adopt legislation on 'nuclear safety'. The next chapter explains how nuclear safety came to be the Euratom's most significant activity area.

The present chapter explores the relationship between 'radiation protection' and other policy areas within the competence of the EU. It identifies possible overlaps between the Euratom Treaty and the EU Treaties and discusses the consequences of the choice of legal basis. What are the main implications of using TFEU legal bases rather than Euratom? To what extent does the Euratom offer any added value? The chapter shows that due to the expansion of competence of the EU Treaties, there are now some considerable overlaps between the Euratom Treaty and the EU Treaties. The chapter argues that this expansion makes the Euratom increasingly redundant.

The chapter is organised in the following way. It first provides an overview of the Euratom's 'Health and Safety' provisions. It then examines legislation adopted on the basis of these provisions (the so-called radiation protection legislation) and explores overlaps between this legislation and policy areas within the competence of the EU, e.g., environmental protection, work safety, and public

health. The chapter then considers the specific question of what role the Euratom can play in border disputes. The final section of the chapter explains how the Court came to decide that the 'Health and Safety' provisions are not applicable to nuclear activities of a military nature.

4.1 The 'Health and Safety' Provisions

The founding fathers of Euratom were well aware of the potential dangers resulting from the use of nuclear energy. The Treaty's preamble recognises that the Member States are 'anxious to create the conditions of safety necessary to eliminate hazards to the life and health of the public'. Article 2(b) provides that the Euratom shall 'establish uniform safety standards to protect the health of workers and of the general public and ensure that they are applied'. This task is detailed in Title II, Chapter 3, entitled 'Health and Safety' (Articles 30 to 39). The provisions regulate human exposure to artificial ionizing radiation,[1] which results not only from the nuclear fuel cycle (effluents from nuclear installations, nuclear accidents or nuclear weapons testing), but also from medical and industrial application.

The provisions can be divided into two main clusters. Articles 30 to 33 concern the establishment of the so-called basic standards. Articles 34 to 38 regulate the surveillance of levels of radioactivity according to those standards. This section outlines these provisions in order to preface the discussion that follows.

4.1.1 The Basic Standards

Articles 30 to 33 Euratom regulate the establishment of the 'basic standards'. The Treaty defines the basic standards as: (a) the maximum permissible doses compatible with adequate safety; (b) the maximum permissible levels of exposure and contamination; and (c) the fundamental principles governing the health surveillance of workers. The basic standards shall be laid down within the Community 'for the protection of the health of workers and the general public

[1] Radiation is also present in nature as natural radiation.

against the dangers arising from ionizing radiation' (Article 30). The protected groups are thus 'workers'[2] and 'the general public'.

Article 31 Euratom sets out the procedure for adopting the basic standards. The Commission shall 'work out' the basic standards (i.e., propose the standards) after it has obtained the opinion of the Economic and Social Committee and a group of scientific experts, which is appointed by the Scientific and Technical Committee. It is then the Council that shall adopt the basic standards, acting by qualified majority. The European Parliament shall merely be consulted. Article 32 sets out the procedure for how the basic standards can be 'revised or supplemented'. This shall be done at the request of the Commission or a Member State. The Commission has to examine any such request made by a Member State.

Article 33 sets out the Member States' obligations in implementing the basic standards. The Member States shall lay down appropriate provisions to ensure compliance with the standards, either by legislation, regulation or administrative action. The Member States are required to send drafts to the Commission,[3] which shall make recommendations for harmonisation.[4]

4.1.2 The Surveillance of Radioactivity Levels

The Euratom's 'Health and Safety' chapter also comprises a section relating to compliance with the basic standards (Articles 34 to 38). Under Article 35, Member States have to establish facilities necessary for monitoring radioactivity levels in air, water and soil. The Commission has the right of access to these

[2] 'Workers' are not defined in the Euratom Treaty. However, Council Directive 2013/59/Euratom defines an '*exposed* worker' as: 'a person, either self-employed or working under an employer, who is subject to exposure at work carried out within a practice regulated by this Directive and who is liable to receive doses exceeding one or other of the dose limits for public exposure'. See Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom, OJ 2014 No. L13, 17 January 2014, p. 1

[3] See Commission Recommendation on the application of the third and fourth paragraphs of Article 33 Euratom of 26 July 1991, OJ 1991 L238, 27 August 1991, p. 31.

[4] The Commission has to issue recommendations within three months on which draft provisions are communicated. As the Court held in the *Nuclear Safety Convention* case, the Member States are required to assist the Commission in drawing up the recommendations. The Court also held that the Commission may make recommendations when it comes to nuclear safety for installations. See Case C-29/99, *Commission* v. *Council* [2002] ECR I-11221, para 105; and Case C-115/08, *Land Oberösterreich* v. *ČEZ* [2009] ECR I-10265, para 114.

facilities and it may verify their operation and efficiency.[5] Every year, the Commission publishes verification reports under this provision.[6] The Member State authorities shall periodically communicate information to the Commission on the radioactivity checks referred to in Article 35 so that it is kept informed of radioactivity levels to which the public is exposed (Article 36).[7] The Commission also publishes annual monitoring reports, on the basis of data received in application of Article 36.

Article 34 concerns the specific case of 'particularly dangerous experiments'. It stipulates that Member States in whose territories such experiments are to take place shall put in place 'additional health and safety measures'. They shall also obtain the Commission's opinion. The Member States have to obtain the assent of the Commission if the experiments are liable to affect the territories of other Member States. In other words, the Commission can prohibit a Member State from carrying out such experiments.

The scope of Article 34 is very limited, as it does not seem to apply to the construction of new types of nuclear power plants.[8] In 1981, it was invoked in a case before the French *Conseil d'Etat*, which simply invoked the *acte clair* doctrine; it explained that the plant at issue was designed for industrial rather

[5] The Commission has adopted a document on the practical arrangements for the conduct of verification visits. See 'Verification of environmental radioactivity monitoring facilities under the terms of Article 35 of the Euratom Treaty: Practical arrangements for the conduct of verification visits in Member States', (2006/C 155/02). It should be noted that verification under Article 35 Euratom is a separate activity, with a different purpose, from the Commission's right of access under the safeguards provisions (Article 81 Euratom). While the purpose of the verification visits under Article 35 is to verify the function of the monitoring facilities, the purpose of the inspections under the safeguards provisions is to verify that nuclear materials are not diverted from intended uses as declared by the users. See further, Chapter 6, 'Non-Proliferation'.
[6] Communication from the Commission, Application of Article 35 of the Euratom Treaty: Verification of the operation and efficiency of facilities for continuous monitoring of the level of radioactivity in the air, water and soil, Report, 1990–2007, COM(2007) 847 final.
[7] The Commission has issued some recommendations on standardized information to be communicated. See Commission Recommendation 2004/2/Euratom of 18 December 2003 on standardized information on radioactive airborne and liquid discharges into the environment from nuclear power reactors and reprocessing plants in normal operation, OJ 2004 No. L2, 6 January 2004, p. 36; and Commission Recommendation 2000/473/Euratom of 8 June 2000 on the application of Article 36 of the Euratom Treaty concerning the monitoring of the levels of radioactivity in the environment for the purpose of assessing the exposure of the population as a whole, OJ 2000 No. L191, 27 July 2000, p. 37.
[8] For example, Finland is currently constructing so-called 'Generation III+' reactors, but an opinion from the Commission under Article 34 Euratom has not been required.

than experimental purposes (the Court eventually asked for a preliminary ruling on Article 37 Euratom instead).[9]

Article 37 Euratom obliges Member States to provide the Commission with information on 'any plan for the disposal of radioactive waste', i.e., information on plans to construct, modify or dismantle an installation. The information has to be such that it enables the Commission 'to determine whether the implementation of such plan is liable to result in the radioactive contamination of the water, soil or airspace of another Member State'.[10] The Commission shall then deliver an opinion, which is based on a report drawn up by a group of experts (the same group as referred to in Article 31). The Commission shall conclude whether or not the implementation of the plan is liable to result in the radioactive contamination of another Member State.[11] The objective is to avoid *transboundary* contamination – not contamination *within* a Member State.

Article 37 Euratom does not specify *when* the Member States have to notify the Commission of the plan for the disposal. In Case C-187/87 *Land de Sarre and others* v. *Ministre de l'industrie*,[12] the ECJ interpreted Article 37 as meaning that the Commission must be provided with the required information *before* definitive discharge authorisation for such disposal is granted. The case

[9] See *Land de Sarre*. See also Koen Lenaerts, 'Border installations', in Peter Cameron, Leigh Hancher, and Wolfgang Kühn (eds.), *Nuclear Energy Law After Chernobyl* (London: International Bar Association, 1988), pp. 49–82, at 56–7. Article 34 might still have some significance. Grunwald argues that experiments of the kind that led to the Chernobyl disaster could have been avoided if the procedure set out in Article 34 had been completed first. Jürgen Grunwald, 'The Role of Euratom', in Peter Cameron, Leigh Hancher, Wolfgang Kühn (eds.), *Nuclear Energy Law After Chernobyl* (London: International Bar Association, 1988), pp. 33–48 at 40.

[10] The Commission has issued some recommendations on the application of Article 37 Euratom, which defines the information the Member States have to submit. The most recent Recommendation is Commission Recommendation 2010/635/Euratom of 11 October 2010 on the application of Article 37 of the Euratom Treaty, OJ 2010 No. L279, 23 October 2010, p. 36. See also the repealed recommendations: Recommendations of 16 November 1960 OJ 1960 No. 81, 21 December 1960, p. 1893; 82/181/Euratom, OJ 1982 No. L83, 29 March 1982, p. 15; 91/4/Euratom, OJ 1991 No. L6, 9 January 1991, p. 16; and 1999/829/Euratom, OJ 1999 No. L324, 16 December 1999, p. 23.

[11] The group of experts draws up a report on planned safety devices in which it analyses the potential radiological consequences of releases of gaseous or liquid radioactive effluents in normal conditions; disposal of solid radioactive waste in normal conditions; and unplanned releases of radioactive effluents that may occur in the event of an accident. The Commission then adopts an opinion on the basis of this report. The Commission has to notify the submitting Member State of the opinion within six months. From 1986 onwards, the reports are published in the Official Journal. During 2012, the Commission issued 12 such opinions.

[12] Case 187/87, *Land de Sarre and others* v. *Ministre de l'Industrie, des P et T et du Tourisme and others* [1988] ECR 5013.

concerned the Cattenom nuclear power station in France, which is located close to the border of Germany and Luxembourg.[13] The state of Saarland, German local authorities, some environmental associations in France and Luxembourg, and a number of private individuals had raised legal proceedings before the *tribunal administratif* in Strasbourg. They claimed that the French government had infringed Article 37 because it had provided the Commission with general data only *after* authorising the plant.[14] The French Court asked the ECJ for a preliminary ruling[15] on whether Article 37 requires notification to the Commission *before* authorisation of the disposal by the Member State authorities or only before the disposal is effected.[16]

The Court stated that is was necessary to interpret Article 37 in light of its context and purpose within the system of the Euratom Treaty. It noted that the 'Health and Safety' provisions 'form a coherent whole conferring upon the Commission powers of some considerable scope in order to protect the population and the environment against the risks of nuclear contamination'.[17] The Court also held that the guidance, which the Commission (assisted by a group of scientific experts) can give to Member States under Article 37, is of 'very great importance, owing, in particular, to the Commission's unique overview of developments in the nuclear power industry throughout the territory of the Community'.[18] Further, '[i]n order to prevent the risk of radioactive contamination, it must therefore be possible for the Commission's opinion […] to be examined in detail by the Member State concerned, under conditions such

[13] The power plant's effluent water flows through the Moselle River.
[14] According to the plaintiffs, Article 37 Euratom required that notification must be made before authorities in the Member State authorise radioactive disposals. The defendants contended that Article 37 must be interpreted as requiring consultation of the Commission 'before any disposal of waste is effected'.
[15] The preliminary ruling was made under Article 150 Euratom. This Treaty article has now been replaced by a reference in Article 106.a Euratom to Article 267 TFEU.
[16] The French government relied upon a Commission Recommendation from 1982, which provides that the information has to be notified 'whenever possible one year but not less than six months before the planned date of commencement of disposal of radioactive waste'. The Court stated that the recommendation could not determine the interpretation of Article 37, because it 'ranks lower than the Treaty'. See para 9 of the Judgment and Commission Recommendation of 3 February 1982, OJ 1982 No. L83, p. 15.
[17] *Land de Sarre*, para 11.
[18] Ibid., para 13.

that the Commission's suggestions can still be taken into account by that State, even if it is not legally obliged to conform with the opinion'.[19]

The Commission's opinion under Article 37 is not legally binding, but as Lenaerts points out, a negative opinion may lead to the 'more compelling' procedure in Article 38 Euratom.[20] Under this article, the Commission shall make recommendations to the Member States with regard to radioactivity levels in the air, water and soil. Further, 'in cases of urgency',[21] the Commission may issue a Directive requiring the Member State to take 'all necessary measures to prevent infringement of the basic standards and to ensure compliance with regulations'. Should the Member State fail to comply with that Directive within the period laid down, the matter may be brought before the Court immediately by way of derogation from Articles 258 and 259 TFEU.[22] This is a specific infringement procedure under the Euratom.[23] Unlike the general infringement procedure under the TFEU, the Commission does not issue a reasoned opinion, and there is no possibility for the Member State to submit observations. This reflects the urgency by which the treaty founders regarded an infringement. Article 38

[19] Ibid., para 14. The Court concluded that the opinion has 'no real chance of being examined in detail and of having any effective influence on the attitude of the State concerned unless it is issued before the adoption of any decision definitively authorizing disposal' (para 18). The Court recognised several problems with a system where the notice would be brought after an authorisation decision: it would be more difficult to take account of an unfavourable Commission opinion; in certain Member States, an authorisation might confer rights upon the person to whom it was granted which could not easily be withdrawn. The Court also pointed out that the knowledge of the Commission's opinion may be of use for the purpose of enabling any person concerned to assess the merits of a possible legal action against the decision granting authorisation. Ibid., para 17.

[20] Lenaerts, 'Border installations', p. 59.

[21] In *Land de Sarre*, the Court explained that Article 38 Euratom is applicable 'where a risk of contamination is imminent or even where contamination has already occurred' (para 12).

[22] In 2005, the Commission issued a report on the application of Article 37 for the years 1994 to 2003. The report shows that for that period, 12 infringement procedures had been launched, but all of them were solved in the pre-litigation stage. During this period, the Commission had delivered 52 opinions. In all of those opinions, the Commission had concluded that the disposal was not likely to result in significant radioactive contamination of another Member State. However, on several occasions, the Commission had included some observations or recommendations. Report on the application of Article 37 of the Euratom Treaty, July 1994 to December 2003, COM(2005) 85 final. See also Resolution of 20 November 1980 on the siting of nuclear power stations in frontier regions, OJ 1980 No. C327, 5 December 1980, p. 34, in which the European Parliament calls on the Commission to submit an annual report on the application of Article 37 Euratom.

[23] See also Article 82 Euratom on the application of safeguards for another Euratom specific infringement procedure.

Euratom has, however, never been applied.[24] It should be pointed out that the general infringement procedure (Articles 258 and 259 TFEU) applies where a Member State has not provided the Commission with information under Article 37 Euratom and there is no 'urgency', which triggers Article 38 Euratom.

Finally, Article 39 Euratom provides that the Commission shall set up a health and safety documentation and study section within the framework of the Joint Nuclear Research Centre (as explained in Chapter 3, 'Nuclear Industrial Development', the JRC was established under Article 8 Euratom). The task of the study section is to collect the documentation and information referred to in Articles 33, 36 and 37, and to assist the Commission in carrying out its tasks.

4.2 Radiation Protection Legislation and the Choice of Legal Basis

The core legislative instrument in the field of radiation protection (adopted on the basis of Articles 30 to 33) is Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation (hereafter, the 'Euratom BSS Directive').[25] The first Euratom BSS directive was adopted in 1959. Since then, it has been updated several times in order to take account of advances in scientific

[24] Jürgen Grunwald, *Das Energierecht der Europäischen Gemeinschaften: EGKS-EURATOM-EG: Grundlagen – Geschichte – geltende Regelungen* (Berlin: De Gruyter Recht, 2003), p. 39.

[25] Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionizing radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom, OJ 2014 No. L13, 17 January 2014, p. 1. This Directive merged some other 'closely linked' directives into one single instrument. These instruments all took Article 31 Euratom as their legal basis and they 'develop[ed] further the requirements of the BSS Directive or refer[red] to different provisions of the BSS Directive'. The rationale for merging them was to 'remove some inconsistencies between the existing pieces of legislation'. See Proposal for a Council Directive laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, COM(2011) 593 final. The repealed directives were: Council Directive 90/641/Euratom of 4 December 1990 on the operational protection of outside workers exposed to the risk of ionizing radiation during their activities in controlled areas, OJ 1990 No. L349, 13 December 1990, p. 21; Council Directive 2003/122/Euratom of 22 December 2003 on the control of high-activity sealed radioactive sources and orphan sources, OJ 2003 No. L346, 31 December 2003, p. 57; Council Directive 89/618/Euratom of 27 November 1989 on informing the general public about health protection measures to be applied and steps to be taken in the event of a radiological emergency, OJ 1989 No. L357, 7 December 1989, p. 31; and Council Directive 97/43/Euratom of 30 June 1997 on health protection of individuals against the dangers of ionizing radiation in relation to medical exposure, repealing Directive 84/466/Euratom of 3 September 1984, OJ 1997 No. L180, 9 July 1997, p. 22.

knowledge,[26] in particular the recommendations from the International Commission on Radiological Protection (ICRP), an international standard-setting body.[27] The Directive establishes uniform basic safety standards for the protection of the health of individuals subject to occupational, medical, and public exposures against the dangers arising from ionising radiation.[28] It applies to 'any planned, existing or emergency exposure situation which involves a risk from exposure to ionising radiation which cannot be disregarded from a radiation protection point of view or with regard to the environment in view of long-term human health protection'.[29] It is a frame of reference for the Commission when it exercises its power under the other 'Health and Safety' provisions (i.e., Articles 34 to 38).[30]

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[26] Directive laying down the basic standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiations, OJ 1959, No. 11, 20 February 1959, p. 221, English special edition: Series I Volume 1959–1962, p. 7. According to Article 218 Euratom (now repealed), the basic standards had to be determined within one year of the entry into force of the Treaty. The Euratom BSS Directive has been updated the following years: 1962, 1966, 1976, 1980, 1984, 1996, and 2013. For a discussion on the Euratom BSS Directive from 1996, see Jean-Michel Courades, 'The new 96/29 EURATOM Directive on the Basic Standard for the Protection of Workers and the General Public against Ionising Radiation' (1996) 58 *Nuclear Law Bulletin* 49.

[27] The ICRP was established in 1928. It develops recommendations that can be used as a basis of norms issued by states and international organisations, such as the IAEA. The ICRP consists of 200 scientists and experts from more than 30 countries. It uses data produced by the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), established in 1955. The OECD's Nuclear Energy Agency (NEA) is also an important actor in the radiation protection field. The NEA seeks to improve the implementation of scientific knowledge. For an overview of the international standard-setting bodies in this area, see Edward Nicholas Lazo, 'The International Systems of Radiological Protection: Key Structures and Current Challenges' (2007) 2007 *Nuclear Law Bulletin* 49–63.

[28] The Commission seeks to establish coherence between Euratom and international standards. It points out that the Euratom BSS Directive is 'not a means to confer legally binding status on the international requirements' because this would 'be at odds with the major role played by Euratom since 1959 and the significant body of legislation that has already been built up'. The Commission explains that 'the language of the international BSS does not conform to EU legal drafting rules' and that 'the international requirements are also sometimes far too detailed and go beyond the idea of "basic" standards in the Euratom Treaty'. The Commission also points out that the Euratom Directive is more ambitious than the international rules because the Euratom has to establish *uniform* basic safety standards. The Commission further explains that rules on the internal market must be taken into account. See Proposal for a Council Directive laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, COM(2011) 593 final.

[29] Article 2 of the Euratom BSS Directive.

[30] There are some cases that concern the implementation of the Euratom BSS Directive (or some of the closely related, but now repealed Directives). See, for example, Case C-218/02, *Commission* v*. United Kingdom* [2004] ECR I-1241; Case C-483/01, *Commission* v*. France* [2003] ECR I-4961; Case C-484/01, *Commission* v*. France* [2003] ECR I-4975; Case C-246/88, *Commission* v*. Italy* [1991] ECR I-2049; Case C-21/96, *Commission* v. *Spain* [1997] ECR I-5481. Case C-95/92,

In the following sections, we shall explore some potential overlaps between legislation adopted on the basis of the Health and Safety provisions and policy areas within the competence of the EU. We consider the provisions on protection of workers (Article 153 TFEU), public health (Article 168 TFEU), and environment (Articles 191 to 192 TFEU). These are policy areas that have made it into the EU Treaties through expansion of competences. If such competences could now be used, does the Euratom still offer any added value? What difference does it make? We shall also examine overlaps (and gaps) in the area of the internal market and trade in order to see how the choice of legal basis is made.

4.2.1 Protection of Workers

The protection of workers is the main focus of the Euratom BSS Directive. But legislation on the protection of workers can also be adopted under the EU Treaties. The EC started to adopt directives on health and safety at work at the end of the 1970s. As an explicit legal basis did not exist, the legislation had to be based on the common market provisions. The argument was that the different protective measures in the Member States could directly affect the functioning of the common market.[31] The Single European Act introduced an explicit legal basis for the protection of workers under the EEC Treaty's Title III, 'Social Policy'.[32] With that new legal basis, the competence to adopt such measures belonged instead to the emerging field of social policy. Today, the EU directives on health and safety at work are based on Article 153 TFEU (under Title X, 'Social Policy'). It provides that the Union shall 'support and complement' the Member States'

Commission v. *Italy* [1993] ECR I-3119; and Case C-146/01, *Commission* v. *Belgium* [2002] ECR I-5117.

[31] See, for example, the preamble to Council Directive 78/610/EEC of 29 June 1978 on the approximation of the laws, regulations and administrative provisions of the Member States on the protection of the health of workers exposed to vinyl chloride monomer, OJ 1978 No. L197, 22 July 1978, p. 12.

[32] In 1992, the Member States adopted the 'Social Protocol' and annexed it to the Maastricht Treaty. The Social Protocol was based on the Community Charter of the Fundamental Social Rights of Workers from 1989. It authorised the Member States to apply a more ambitious text than the Treaty chapter on Community social policy. The Amsterdam Treaty incorporated this text into the EC Treaty in 1997, and thereby further strengthened the social policy area.

activities to improve the 'working environment to protect workers' health and safety'.[33]

Of the various instruments adopted on this legal basis, the most central is the 'OSH' Framework Directive from 1989.[34] This Directive is the legal basis for a range of implementing directives on specific aspects of safety and health at work.[35] One example is the Council Directive on the protection of the health and safety of workers from the risks related to chemical agents.[36] It provides for the drawing up of occupational exposure limit values and biological limit values; it contains rules on specific protection and prevention measures; arrangements to deal with accidents, incidents and emergencies; information and training for workers; and arrangements for carrying out appropriate health surveillance of workers. These rules are very similar to the rules under the Euratom BSS Directive, which establishes 'dose limits' for exposed workers (cf. the occupational exposure limit values and biological limit values under the Directive mentioned above). The BSS Directive also obliges the Member States to adopt certain measures for the restriction of exposure, introduce arrangements for the radiological surveillance of the working environment and arrangements for carrying out medical surveillance of exposed workers.[37] The most important

[33] Article 4 TFEU clarifies that 'social policy' is a shared competence 'for the aspects defined in this Treaty'. Article 4 clarifies that the 'common safety concerns in public health matters, for the aspects defined in this Treaty' is also a shared competence area. Article 153 TFEU is placed under the heading 'Social Policy' (Title X). This seems to indicate a 'shared' competence. But a close examination reveals that the competence is 'supplementary' rather than 'shared'. Does Article 153 TFEU instead belong to the category of competence to 'support, coordinate or supplement' the Member States' actions as listed in Article 6 TFEU? After all, we find the policy area 'protection and improvement of human health' listed there. The competence catalogue is not very clear on this point.

[34] Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work, OJ 1989 No. L183, 29 June 1989, p. 1.

[35] Since the 1990s, the Commission has adopted a series of strategies on the health and safety for workers. The most recent one is the Community strategy 2007–2012 on health and safety at work, COM(2007) 62 final.

[36] Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work, OJ 1998 No. L131, 5 May 1998, p. 11. The preamble clarifies that the Directive is 'without prejudice to the provisions for chemical agents to which measures for radiation protection apply pursuant to Directives adopted under the Treaty establishing the European Atomic Energy Community'. Another, more recent example is Directive 2013/35/EU of the European Parliament and of the Council of 26 June 2013 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields) and repealing Directive 2004/40/EC, OJ 2013 No. L179, 29 June 2013, p. 1.

[37] Rules on protection for workers were previously also found in the 'Outside Workers Directive', which protected contract workers. Council Directive 90/641/Euratom of 4 December 1990 on

difference seems to be the type of hazardous substance they seek to control (i.e., chemical agents or, as in the case of the Euratom BSS Directive, ionising radiation).

But the legal basis for protection of workers under the TFEU seems to be more limited than the Euratom provisions. Article 153 TFEU only allows for 'minimum requirements', and the legislation has to 'avoid imposing administrative, financial and legal constraints in a way which would hold back the creation and development of small and medium-sized undertakings'. The Euratom Treaty does not show any such considerations for undertakings and the legislator is not limited to the setting up of minimum requirements – the Euratom provisions allow for the determination of a 'unified standard' applicable in all Member States. However, in terms of the level of the standard, there does not seem to be a great deal of difference between 'minimum requirements' and 'uniform standards'. In Case C-376/90, *Commission* v. *Belgium*,[38] the Commission had brought an action for a declaration that Belgium had not fulfilled its obligations under the Euratom BSS Directive.[39] The dispute concerned the interpretation of the expression 'dose limits' in Article 10(2) of the Directive.[40] The Belgian national law was stricter than the Directive. The Commission submitted that the Directive did not empower the Member States to fix stricter dose limits. Belgium contended that the dose limits represented a minimum level protection and that the Member States may fix stricter limits.

The Court found that the wording of the Directive does not militate in favour of either of these views. It dismissed the Commission's argument that it had to rely

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the operational protection of outside workers exposed to the risk of ionizing radiation during their activities in controlled areas, OJ 1990 No. L349, 13 December 1990, p. 21 [now repealed; the rules are now transposed to the new 2013 Euratom BSS Directive].

[38] Case C-376/90, *Commission* v. *Kingdom of Belgium* [1992] ECR I-6153.

[39] The action was brought under Article 141 Euratom, which is now repealed and replaced by a reference in Article 106a Euratom to Article 258 TFEU. In particular, Belgium had failed to adopt the laws, regulations and administrative provisions needed to comply with Article 10(2) and Articles 44 and 45 of Council Directive 80/836/Euratom of 15 July 1980 laying down basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation, OJ 1980 L246, p. 1.

[40] According to the Euratom BSS Directive, the dose limits for apprentices and students aged between 16 and 18 intending to pursue an occupation in the course of which they will be exposed to ionizing radiation or who, due to their studies, are obliged to use sources, were three-tenths of the annual dose limits fixed for persons exposed in the course of their occupations. The Belgian law provided that the annual dose limit would be one-tenth.

on Article 2(b) Euratom, which states that it is the task of Euratom to establish '*uniform* safety standards'.[41] The Court stated that the uniformity of safety rules does not mean that more stringent protection may not be allowed. It pointed out that the BSS Directive was based on the ICRP recommendations (i.e., as mentioned, an international body outside the EU). It then examined how those recommendations define 'dose limits'.[42] The Court then held that there was nothing in the Directive to indicate that the EU legislature had departed from the ICRP position regarding dose limits or that it left the Member States no discretion to provide for a higher level of protection than that prescribed by the Directive. The Court concluded that if the EU legislature had intended to prohibit the Member States from introducing a higher level of protection, the Directive would have included an express provision to that effect. The application was dismissed.

The most recent Euratom BSS Directive now refers to the Court's case law and it makes explicit that Member States can choose to adopt higher standards.[43] Thus, the Euratom BSS Directive and the EU Directives on protection for workers clearly show many similarities in legal terms. The distinction between 'uniform standards' and 'minimum standards' is a distinction without a difference. However, on a symbolic level, a 'uniform standard' may be preferable at a time when the EU is aiming to strengthen the requirements for nuclear activities.[44] In this sense, the Euratom provides some added value.

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[41] Emphasis added.

[42] The Court held: 'the dose limits fixed by the ICRP are not absolute values but are published merely for guidance and that the principle underlying them is that of the optimization of protection' (Case C-376/90, para 25).

[43] The most recent Euratom BSS Directive (Council Directive 2013/59/Euratom) confirms this. Recital 5 of the preamble states: 'As recognised by the Court of Justice of the European Union in its case-law, the tasks imposed on the Community by point (b) of Article 2 of the Euratom Treaty to lay down uniform safety standards to protect the health of workers and the general public does not preclude, unless explicitly stated in the standards, a Member State from providing for more stringent measures of protection. As this Directive provides for minimum rules, Member States should be free to adopt or maintain more stringent measures in the subject-matter covered by this Directive, without prejudice to the free movement of goods and services in the internal market as defined by the case-law of the Court of Justice'.

[44] Note also ILO's Radiation Protection Convention on protection of workers against ionising radiations, adopted in 1962. The Convention has been signed by 18 EU Member States. It provides, *inter alia*, that appropriate monitoring of workers and places of work shall be carried out and that workers directly engaged in radiation work shall undergo an appropriate medical examination. The Convention is much less detailed than the Euratom BSS directive. See ILO,

4.2.2 Environment

As mentioned above, the primary aim of the Euratom's 'Health and Safety' provisions and the Euratom BSS Directive is to protect human beings, and, as we have seen, an important group is exposed workers. Another protected group is the 'general public'. The protection of the general public (or, rather, the protection of 'human health') is also an explicit objective of the EU's environmental policy. Could the EU's environmental competence (i.e., Articles 191 and 192 TFEU) be used to adopt radiation protection legislation? And can the environmental competence in the TFEU in other ways be complementarily applicable within the scope of the Euratom?

We shall first note that the original EEC Treaty contained no provisions on the environment; initially, overlaps did not exist. The EEC turned its attention to the environment in the early 1970s. As there was no specific legal basis, the legislation had to be based on Article 235 EEC (now Article 352 TFEU, the 'flexibility clause') and Article 100a (now Article 114 TFEU, common market). The Single European Act introduced an explicit legal basis for environment.[45] The Amsterdam Treaty gave environmental protection an even more prominent role by clarifying at the beginning of the EC Treaty that environmental protection must be integrated into the definition and implementation of other EC policies. Since then, the EU's environmental policy has expanded rapidly. Article 3.3 TEU now states that the Union shall work for 'a high level of protection and improvement of the quality of the environment'. Article 4 TFEU clarifies that the environmental competence is shared between the Union and the Member States.

Clearly, radiation protection and environmental protection are closely linked.[46] The EC Directive on the quality of water intended for human consumption

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Radiation Protection Convention, 1960 (No. 115), Convention concerning the Protection of Workers against Ionising Radiations, Geneva, 44th ILC session, 22 June 1960, in force 17 June 1962. In the field of radiation protection, the ILO has also adopted a recommendation, codes of practice, guides and reports.

[45] The SEA introduced a separate title for environment at Articles 130r–t (now Article 191–192 TFEU). The SEA also introduced a reference to the environment in Article 100a (now Article 114 TFEU) on the internal market.

[46] For a discussion on whether the Euratom provisions on 'health and safety' and the radiation protection legislation are solely aimed at protecting the health of humans or extend to environmental protection, see also Ilina Cenevska, 'Protection of the Health of Workers and the General Public under the Euratom Treaty and the EU Environmental Policy – the Ratio between

illustrates this close relationship.[47] Although adopted only on an environmental legal basis, the Directive covered also radioactive substances. In 2011, however, the Commission submitted a proposal on a Euratom Directive that was to supersede the provisions of the EC Directive as regards radioactive substances.[48] In other words, certain parts of the EC Directive were to form a separate Euratom Directive.[49] The Commission explained that this would maintain the 'uniformity, coherence and completeness of radiation protection legislation'.[50] In a memorandum accompanying the proposal, the Commission further explained:

> Taking into account the implementation of the general principle in legal theory and practice that establishes that a law governing a specific subject matter overrides a law which only governs general matters ("lex specialis derogat legi generali"), the provisions of the Directive under the EURATOM Treaty supersede those of the Directive 98/83/EC as regards radioactive substances in drinking water.[51]

Thus, according to the Commission, it is the *lex specialis* principle that protects Euratom's prerogatives. But as the Commission signalled in its proposal for a revised Euratom BSS Directive, there had been some discussion of the appropriate legal basis.[52] One consequence of forming a separate Euratom

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Human Health Protection and Environmental Protection' (2012) 21 *European Energy and Environmental Law Review* 176–87.

[47] Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption, OJ 1998 No. L330, 5 December 1998, p. 32.

[48] Proposal for a Council Directive laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption, COM(2011) 385.

[49] The Commission explains that it concerns those parts 'with regard to its application to radioactive substances and complement it with technical annexes on sampling frequencies, methods of analysis and detection levels'. See Proposal for a Council Directive laying down basic safety standards for protection against the dangers arising from exposure to ionizing radiation, COM(2011) 593 final.

[50] But note Commission Recommendation 2001/928/Euratom of 20 December 2001 on the protection of the public against exposure to radon in drinking water supplies, OJ 2001 No. L344, 28 December 2001, p. 85.

[51] See explanatory memorandum accompanying Proposal for a Council Directive laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption, COM(2011) 385 final.

[52] The Commission decided it was more appropriate (at this stage) not to incorporate this substance matter in the recast with the BSS Directive, although the substance matter is such that it would be possible. The reason was that the Directive 'is intended to merely transpose existing requirements under EC Treaty [sic] legislation, in such a way as to avoid any interpretation as to a possible change in substance', and that 'at the time the Article 31 Group of Experts gave its opinion on the revised Basic safety standards Directive, there was still discussion whether a Directive on radioactive substances in water intended for human consumption should be based on Euratom Treaty or EC Treaty'. See Proposal for a Council Directive laying down basic safety

Directive is that the European Parliament has to take a step back. The environmental legal basis (Article 192.1 TFEU) provides that the European Parliament is co-legislator, but under Article 31 and 32 Euratom, under which the Euratom Directive was eventually adopted, the Parliament only has a consultative role. In 2013, the Council adopted a Euratom Directive on the protection of the health of the general public with regard to radioactive substances in water intended for human consumption.[53] Not surprisingly, in Case C-48/14,[54] the European Parliament has brought an action to annul the Directive, claiming that the choice of legal basis should be Article 192 TFEU and not Articles 31 and 32 Euratom. The case is pending.

Another example illustrating the close relationship between radiation protection and environmental protection is Directive 2008/99/EC on the protection of the environment through criminal law.[55] It provides that Member States shall ensure that the following conduct constitutes a criminal offence: 'the discharge, emission or introduction of […] ionising radiation into air, soil or water, which causes or is likely to cause death or serious injury to any person or substantial damage to the quality of air, the quality of soil or the quality of water, or to animals or plants'.[56] This is an offence 'when unlawful and committed intentionally or with at least serious negligence'. The Directive provides a similar provision for 'nuclear materials or other hazardous radioactive substances'. Under the Directive, 'unlawful' means infringing the legislation adopted pursuant to the EC Treaty and listed in Annex A, *or* activities covered by the Euratom Treaty, the legislation adopted pursuant to the Euratom Treaty and listed in Annex B.[57]

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standards for protection against the dangers arising from exposure to ionising radiation, COM(2011) 593 final.

[53] Council Directive 2013/51/Euratom of 22 October 2013 laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption, OJ 2013 No. L296, 7 November 2013, p. 12.

[54] Case C-48/14, *European Parliament* v. *Council*, Action brought on 30 January 2014.

[55] Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law, OJ 2008 No. L328, 6 December 2008, p. 28.

[56] See Article 3 of the Directive.

[57] The listed legislation in Annex B is the Euratom BSS Directive; the Council Directive 2003/122/Euratom of 22 December 2003 on the control of high-activity sealed radioactive sources and orphan sources, OJ 2003 No. L346, 31 December 2003, p. 57 (the 'HASS

This Directive is adopted on the environmental legal basis (now Article 192 TFEU). It is unclear why a joint legal basis is not applied (i.e., one in the EC Treaty and one in the Euratom Treaty). The Commission has held that the Court's conclusion in the *Environmental Penalties* case could be applied to the Euratom Treaty 'by analogy'.[58] This means that the legislator can adopt measures relating to the Member States' criminal law, which it considers necessary in order to ensure that rules on environmental protection are fully effective. In other words, the Euratom Treaty could also have been applied.

Yet another example concerns the 'Environmental Impact Assessment Directive' (EIA),[59] which is adopted on Article 192 TFEU, but which also covers nuclear installations. Let us here briefly examine the Directive's legislative history. In 1976, the Commission submitted a proposal for a Council Regulation, which would 'supplement' the notification procedure in Article 37 Euratom: a Community consultation procedure in respect of power stations likely to affect the territory of another Member State.[60] The suggested procedure would cover not only nuclear power plants, but also conventional (non-nuclear) stations.[61] The flexibility clauses in the Euratom Treaty (Article 203) and the EEC Treaty (Article 235, now Article 352 TFEU) were suggested as a joint legal basis. The

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Directive')[now repealed and the provisions transposed to the BSS Directive]; and the Shipment of Radioactive Waste Directive.

[58] See Chapter 6, 'Non-Proliferation'.

[59] Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment, OJ 2012 No. L26, 28 January 2012, p. 1. It was amended in 2014 by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, OJ 2014 No. L124, 25 April 2014, p. 1.

[60] Proposal for a Council Regulation concerning the introduction of a Community consultation procedure in respect of power stations likely to affect the territory of another Member State, COM(1976) 576 final, OJ 1977 No. C31, 8 February 1977, p. 3.

[61] The preamble of the proposal emphasised that Community-wide consultation existed only in respect of plans for the discharge of radioactive effluents likely to cause radioactive contamination of another Member State. The procedure would also cover plants that for some reasons were 'not covered by Article 37'. Article 1 read: '1. The construction of new power stations and the extension of existing ones likely to have effects, not covered by Article 37 of the Treaty establishing the European Atomic Energy Community, on the territory of a Member State other than the one on whose territory it is proposed to carry out the project shall be subject to a procedure of prior Community consultation.
2. Conventional thermal power stations with a net generating capacity of less than 200 MW and hydroelectric power stations with a net generating capacity less than 50 MW shall be excluded from the consultation procedure'.

Council did not adopt this proposal. Instead, it decided on a Resolution,[62] in which it endorsed the proposal in principle.

In 1979, just a few months after the Three Mile Island Accident in the United States, the Commission submitted a new proposal, with identical content to the previous one.[63] The accident could have presented a 'window of opportunity' for Community legislation, but it did not seem to have had any effect on the positions within the Council. This proposal was not adopted either.[64] In 1980, the Commission submitted yet another proposal.[65] It was only five years later, however, that the Council agreed on the content.[66] So why did the Council adopt the EIA Directive, but reject the Commission's previous proposals? What are the differences?

In the previous proposals, the Commission was to be given a central role in the procedure (although it would only have resulted in a non-binding opinion). The EIA Directive provides a less centralised and less supranational system than the one the Commission had initially proposed: it is a procedure between Member States and not run by the Commission. Further, unlike the initial proposal, the legislation was adopted in the form of a Directive, which provides some flexibility for the Member States. Moreover, the initial proposal covered only transboundary effects, while the EIA Directive also covers effects within Member States.

While the two earlier proposals had been presented as instruments to protect the 'environment' and 'health and safety' (and based on the flexibility clauses),

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[62] Council Resolution of 20 November 1978, concerning mutual exchange of information at community level of the siting of power stations, OJ 1978 No. C286, 30 November 1978, p. 1. The European Parliament had adopted several resolutions in support for legislation; see OJ 1976 No. C228 9 February 1976, p. 12; OJ 1977 No. C183 1 August 1977, p. 56; and OJ 1980 No. C327, 15 December 1980, p. 34.

[63] Proposal for a Council Regulation concerning the introduction of a Community Consultation Procedure in Respect of Power Stations Likely to Affect the Territory of Another Member State, OJ 1979 No. C149, 15 June 1979, p. 2.

[64] The Three Mile Island accident happened on March 29, 1979 in Pennsylvania, the United States. Following the accident, nuclear safety became a priority for the JRC programme (1980–83). Almost half of the total funds were spent on this. See Luca Guzzetti, *A Brief History of European Union Research Policy* (Luxembourg: OOPEC, 1995), p. 125.

[65] Proposal for a Council Directive Concerning the Assessment of the Environmental Effects of Certain Public and Private Projects, COM(1980) 313 final, OJ 1980 No. C169, 9 July 1980, p. 14.

[66] Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, OJ 1985 No. L175, 5 July 1985, p. 40.

the later proposal was presented as a common market instrument. The Commission suggested only Article 100 EEC (now Article 114 TFEU) as a legal basis. At that time, Article 100 did not yet refer to the protection of environment (the reference to the environment was introduced by the Single European Act). When the Directive was finally adopted, however, Article 235 EEC (flexibility clause, now Article 352 TFEU) had been added in the absence of an explicit legal basis on (or reference to) the environment.[67] Interestingly, the Euratom Treaty was no longer mentioned. Thus, what had initially been discussed as a procedure to 'supplement' the notification procedure in Article 37 Euratom, had now become an EEC common market instrument and an environmental instrument. After several amendments, a new EIA Directive was adopted in 2011 (replacing the old one).[68] It takes Article 192(1) TFEU (environment) as its sole legal basis. The reference to the internal (or common) market has been removed.[69]

The EIA Directive applies to nuclear installations, although it does not take the Euratom Treaty as a legal basis. What are the differences between the procedures? Does Article 37 Euratom offer any added value? As explained, Article 37 obliges Member States to provide the Commission with information on plans to construct, modify, or dismantle a nuclear installation. On the basis of this information, the Commission shall determine whether the 'plan is liable to result in radioactive contamination of the water, soil or airspace of another Member State', i.e., whether the plan can have transboundary effects. Article 37

[67] The Directive's preamble stated: 'The disparities between the laws in force in the various Member States with regard to the assessment of the environmental effects of public and private projects may create unfavourable competitive conditions and thereby directly affect the functioning of the common market'.
[68] Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment, OJ 2012 No. L26, 28 January 2012, p. 1. It was amended in 2014 by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, OJ 2014 No. L124, 25 April 2014, p. 1.
[69] In 2001, the Strategic Environmental Assessment Directive (SEA) was adopted under the EC Treaty. It supplements the EIA directive. It requires consultation already at the screening stage and it requires an assessment of reasonable alternatives. The Member States have to ensure that environmental reports are of certain quality. Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, OJ 2001 No. L197, 21 July 2001, p. 30.

Euratom only applies to '*radioactive* contamination of the water, soil or airspace of another Member State'.[70]

The scope of the EIA Directive is broader. It applies to both conventional plants and nuclear power plants ('to the assessment of the environmental effects of those public and private projects which are likely to have significant effects on the environment').[71] Both the EIA Directive and the Article 37 Euratom procedure deal with transboundary contamination, although Article 37 Euratom deals with this exclusively. The most important difference concerns the central role of the Commission, which under Article 37 Euratom shall examine the information before the national authorities can take a decision. Under the EIA Directive, the developer must provide information on the environmental impact[72] and consult with environmental authorities and affected Member States.[73] When making a decision, the competent authority has to take into account the result of the consultation. The public can then challenge the decision of the authority in a national court. So, under the EIA procedure, the Member States deal with the information themselves, without the involvement of the Commission.

One might argue that the procedure under Article 37 has no real significance.[74] Most often, the Commission comes to the conclusion that the implementation of a plan is *not* liable to result in the radioactive contamination of another Member State. But, as the Court pointed out in *Land de Sarre*, under Article 37 the Commission may provide the Member State with guidance, which is of 'very

[70] An environmental impact assessment has to take place 'before consent is given', i.e., prior to the authorisation of the projects by the national authorities. There is a parallel here to the notification procedure under Article 37 Euratom, which, after *Land de Sarre*, also has to take place before definitive discharge authorisation for waste disposal is granted. See Case 187/87, *Land de Sarre and others* v. *Ministre de l'Industrie, des P et T et du Tourisme and others* [1988] ECR 5013.
[71] Article 1 of the EIA Directive.
[72] Prior to this information stage is the so-called 'scoping stage', where the developer makes a request to the competent authority on what information to provide.
[73] See Article 7 of the EIA Directive.
[74] See, for example, Per Cramér, Thomas Erhag, and Sara Stendahl, 'Om reglering av ansvar i kärnbränslecykelns slutsteg – parallell reglering inom ramarna för Euratom och EG-fördraget' (Stockholm: SKB, 2009). They question whether the Member States comply with this provision at all. But as previously noted, the Commission is frequently issuing opinions under Article 37 Euratom, and a failure by a Member State to provide the Commission with information is an infringement of the Euratom Treaty. See further, section 4.1.2, in particular footnote 22.

great importance, owing, in particular, to the Commission's unique overview of developments in the nuclear power industry throughout the territory'. Thus, it may not be the outcome of the opinion but rather the *guidance* that is the real value of Article 37 Euratom.

This brief account shows that the nuclear sector is not only governed by the Euratom Treaty provisions and Euratom legislation, but also by the EU's environmental legislation. Environmental provisions could be used (and are in fact used) to adopt radiation protection legislation. The environmental provisions could also be used to adopt instruments that also in other ways concern the scope of the Euratom.[75] Radiation protection and environmental policy are increasingly intertwined. In addition to the examples already provided, we can also note that the most recent Euratom BSS Directives refer to the 'environment'. Before 1996, such a reference was missing. The Euratom's 'Health and Safety' provisions do not expressly mention the 'environment', but Article 35 Euratom refers to the 'monitoring of the level of radioactivity in the air, water and soil' and Article 37 Euratom refers to 'water, soil or airspace'. Although the Euratom provisions were not initially meant to protect the environment, this is certainly the case today. In this context, it should be pointed out that the Court stated in *Land de Sarre* case that the 'Health and Safety' provisions also aim at protecting the environment.[76]

We find the same close relationship between radiation protection and environmental protection on the international level,[77] where international

[75] Environmental provisions could possibly also be applied to adopt the rules that were previously in the 'HASS Directive' (Council Directive 2003/122/Euratom), which imposed obligations on Member States to control radioactive sources that are commonly used in the industry, for medical purposes, and for research purposes. The Directive required the Member States to keep records of sources and obliged them to cooperate with each other, third countries and international organisations as regards loss, removal, or theft. The Directive further provided that Member States should determine penalties applicable to breaches of the national provisions adopted under the Directive. As previously pointed out, this Directive has now been repealed and the provisions transferred to Council Directive 2013/59/Euratom.
[76] Case 187/87, *Land de Sarre and others* v. *Ministre de l'Industrie* [1988] ECR 5013, para 11.
[77] Some of the international conventions on impact assessment, access to information and public participation, also include specific rules for the nuclear activities. See Study launched by the European Commission Directorate General for Energy and Transport 'Situation concerning public information about and involvement in the decision-making process in the nuclear sector', May 2007. Available at:
http://ec.europa.eu/energy/nuclear/doc/governance/2007_05_study_en.pdf

environmental instruments apply to nuclear activities.[78] One example is the Espoo Convention,[79] which obliges parties to assess the environmental impact of certain activities, including nuclear energy projects, at an early stage of planning. States are also obliged to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries. It also provides that members of the public shall be given the opportunity to participate in environmental impact assessment procedures. The EU and all the Member States (except Malta) are contracting parties.

Another example is the Aarhus Convention,[80] which sets up rules for access to information, public participation, and public access to justice in environmental matters. The EC signed it in 1998 (alongside most of its Member States) and acceded to it in 2005.[81] The rules on access to information and public participation have been transposed to EU law through directives.[82] The Euratom is not a signatory, but some of the implementing legislation relates to nuclear activities (such as the EIA Directive) and some Euratom legislation also implements the Convention: The Nuclear Safety Directive[83] includes a

[78] Sam Emmerechts, 'Environmental Law and Nuclear Law: A Growing Symbiosis' (2008) 82 *Nuclear Law Bulletin*, 91–110. Emmerechts points out that while some international environmental instruments include nuclear activities, some explicitly exclude them – often because there are already instruments that specifically deal with nuclear activities.
[79] The Espoo Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, 25 February 1991, in force 10 September 1997, ILM vol. 30 1991 800.
[80] Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention), Aarhus, 28 June, 1998, in force 30 October 2002, 2161 UNTS 447; 38 ILM 517 (1999). The Court has ruled that Article 9(3) of the Convention does not have direct effect. See Case C-240/09, *Lesoochranárske zoskupenie VLK* v. *Ministerstvo životného prostredia Slovenskej republiky* [2011] ECR I-1255.
[81] Council Decision 2005/370/EC of 17 February 2005 on the conclusion, on behalf of the European Community, of the Convention on access to information, public participation in decision-making and access to justice in environmental matters, OJ 2005 No. L124, May 17 2005, p. 1. The Decision was based on Article 175(1) EC (environment, now Article 192(1) TFEU).
[82] Certain provisions of the Aarhus Convention have been incorporated into the EIA Directive. See Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC, OJ No. 2003 L41, 14 February 2003, p. 26; Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC - Statement by the Commission, OJ 2003 No. L156, 25 June 2003, p. 17.
[83] Article 8 of Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community Framework for the Nuclear Safety of Nuclear Installations, OJ 2009 No. L172, p. 18. See Chapter 5, 'Nuclear Safety'.

requirement on information to the public, and the Nuclear Waste Directive includes provisions on public participation and access to information.[84] However, we also have international instruments that explicitly *exclude* their application to nuclear activities. One such example is the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.[85] The reason is that there are other international instruments that exclusively cover nuclear waste, the most significant being the Joint Convention.[86] We shall discuss the Joint Convention and the Nuclear Safety Convention in Chapter 5.

Given this close relationship between radiation protection and environmental protection, we must now say a few words on environmental principles. According to Article 192 TFEU, the Union policy on the environment 'shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay'. These principles do not apply to the Euratom Treaty. The Euratom BSS rules are instead formulated around three basic principles (these principles are enshrined in secondary legislation and not as the environmental principles, in primary legislation)[87]: the limitation principle, the optimisation principle (also known as the 'ALARA' principle),[88] and the justification principle. The 'limitation principle' stipulates that exposure to ionizing radiation has to be limited by dose limits for members of the public. In the recent decades, however, scientific advances have shown that there is no such thing as a 'safe' dose. Therefore, according to the

[84] Article 12 of Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community Framework for the Responsible and Safe Management of Spent Fuel and Radioactive Waste, OJ 2011 No. L199, p. 48.
[85] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Basel, 22 March 1989, in force 5 May 1992, 1673 UNTS 57/ [1992] ATS 7/ 28 ILM 657 (1989).
[86] The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, 5 September 1997, in force 18 June 2001, INFCIRC/546, IAEA. Initially, the Nuclear Safety Convention would cover all safety related issues, including the management of radioactive waste. It was eventually decided that a separate Convention had to be drawn up for radioactive waste management and spent fuel management. For a detailed examination, see Wolfram Tonhauser and Odette Jankowitsch, 'The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management' (1997) 60 *Nuclear Law Bulletin* 9–22.
[87] See Article 5 of Council Directive 2013/59/Euratom. These principles are also found in the ICRP's policy recommendations.
[88] See ALARA stands for 'As Low As Reasonably Achievable'.

'optimisation principle', exposure must also be kept 'as low as reasonably achievable' and take into account 'economic and societal factors'. The Member States also have to ensure that all new types of practice resulting in exposure are justified by their economic, social or other benefits in relation to the health detriment they may cause (the 'justification principle'). Much could probably be said about the compatibility between the radiation protection principles and the environmental principles, but I would like to restrict myself here by pointing out that we should not assume that the rationale behind the Euratom's 'Health and Safety' provisions and the EU's environmental provisions is the same.

What are the consequences of the choice of legal basis when it comes to the environment? We have already briefly touched upon the most obvious one, which concerns the legislative procedure. Under Article 192 TFEU, the ordinary legislative procedure applies (although in certain areas, the Council decides by unanimity). Under this procedure, the Parliament acts as a co-legislator. By contrast, under Article 31 Euratom, the European Parliament has merely a consultative role. Under Article 31, the Commission has to obtain the opinion of a group of scientific experts (appointed by the Scientific and Technical Committee) before working out the basic standards. If adopted under Article 192 TFEU instead, such input could possibly come from Commission Committees.

Another consequence concerns the nature of competence and how much legislative space there is left to the Member States. While the Euratom's 'Health and Safety' provisions are generally exclusive, the environmental powers are shared.[89] We shall clarify that when the legislator applies the EU's environmental powers, it shall apply the subsidiarity principle, which only comes into play in

[89] The Commission points out in its proposal for a Directive on radioactive substances in drinking water that the principle of subsidiarity does not apply because the Euratom's powers under the 'Health and Safety' chapter are exclusive in nature (but note that the subsidiarity principle does not formally apply to the Euratom Treaty as Article 106a Euratom does not refer to Article 5.3 TEU – and the principle is not codified in the Euratom Treaty itself). As Article 5.3 TEU stipulates, the principle of subsidiarity only applies to areas that do not fall within exclusive competence. Conversely, under the environmental provisions, the competence is shared between the EU and the Member States (environment is also listed as a shared competence in the competence catalogue, Article 4.2.e TEU). See Proposal for a Council Directive laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption, COM(2011) 385. See, however, the Commission's proposal on the Nuclear Safety Directive, where it refers to the principle of subsidiarity. See Proposal for a Council Directive (Euratom) setting up a Community framework for nuclear safety, COM(2008) 790 final.

cases of shared competence. However, as pointed out in Chapter 2, 'The Structural Relationship', the subsidiarity principle does not formally apply to the Euratom anyway. It should also be clarified that the nature of the competence does not tell us anything about the relationship between the Treaties. In other words, it does not follow from the Euratom's exclusive competence in this field that the environmental powers cannot come into play. The nature of competence is a conceptually different issue from the choice between the Treaties and the choice of legal basis.

The discussion so far has shown that environmental competence under the TFEU could be used to adopt legislation on radiation protection; if we did not have the Euratom, the environmental provisions seem like a suitable candidate. The Euratom provisions are to be applied because of the *lex specialis* principle and the 'shall not derogate' clause. A more problematic question is whether legislation adopted on the basis of the environmental provisions is also applicable to the nuclear industry? We have seen that they apply in practice (e.g., the EIA Directive), as the nuclear sector is not shielded from environmental legislation. How is this different from the State aid/competition rules situation discussed in Chapter 3? In that chapter, we saw that the Euratom's objectives and overall 'spirit' (its main task is to create 'the conditions necessary for the speedy establishment and growth of nuclear industries') might counter the application of State aid and competition rules to the nuclear sector. But there is no such apparent 'clash' when it comes to the application of the environmental provisions. One might argue that environmental regulation in fact often constitutes a burden for the nuclear industry. But as we have seen, 'health and safety' under the Euratom and the environmental protection under the TFEU are closely related. The objective of environmental protection and radiation protection is the same ('protecting human health'). Recall also that the Euratom preamble recognises the importance of 'creat[ing] the conditions of safety necessary to eliminate hazards to the life and health of the public'. The application of environmental legislation to the nuclear industry is therefore less problematic than the application of the State aid and competition rules.

4.2.3 Public Health

Could 'public health' under the TFEU be another potential legal basis for radiation protection legislation? Article 168 TFEU, which was introduced by the Maastricht Treaty, states that 'a high level of human health protection shall be ensured in the definition and implementation of all Union policies'.[90] This competence is, however, rather limited. The Union shall only 'encourage cooperation between the Member States' or adopt 'incentive measure [...] excluding any harmonisation of the laws and regulations of the Member States'.[91] Thus, under Article 168, harmonisation is explicitly prohibited. The EU has only the power to 'support, coordinate or supplement the actions of the Member States'.[92] But Article 168 also provides for a qualitatively broader competence, which does not restrict harmonisation. This is the case for 'measures in the veterinary and phytosanitary fields which have as their direct objective the protection of public health' and for 'measures setting high standards of quality and safety for medicinal products and devices for medical use'.[93] This provision could possibly be used for rules on medical radioactive exposure, the major source of exposure to artificial sources of ionizing radiation of EU citizens.[94] Provisions to protect patients are currently included in the Euratom BSS Directive.[95]

One might argue that the EU's public health competence has already come into play in the field of radiation protection, at least indirectly. Following the

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[90] Note also Article 9 TFEU, which provides that in defining and implementing its policies and activities, the Union shall take into account the protection of human health.
[91] Article 6 TFEU clarifies that the protection and improvement of human health is an area where the Union only has 'competence to carry out actions to support, coordinate or supplement the actions of the Member States'.
[92] Article 168 TFEU could be applied to adopt recommendations. We have recommendations also in the area of radiation protection. See Commission Recommendation 90/143/Euratom of 21 February 1990 on the protection of the public against indoor exposure to radon, OJ 1990 No. L80, 27 March 1990, p. 26.
[93] Further, Article 4.2(k) TFEU clarifies that there is shared competence between the Union and the Member States in the area of 'common safety concerns in public health matters, for the aspects defined in this Treaty'.
[94] Communication from the Commission to the European Parliament and the Council on medical applications of ionizing radiation and security of supply of radioisotopes for nuclear medicine, COM(2010) 423.
[95] These provisions were previously found in Council Directive 97/43/Euratom of 30 June 1997 on health protection of individuals against the dangers of ionizing radiation in relation to medical exposure, and repealing Directive 84/466/Euratom, OJ 1997 No. L180, 9 July 1997, p. 22. This Directive has now been repealed and the provisions transposed to Council Directive 2013/59/Euratom (the Euratom BSS Directive).

Fukushima accident in 2011, the Commission adopted an implementing Regulation on imposing conditions governing the import of feed and food originating in or consigned from Japan.[96] This Regulation is adopted under the Regulation establishing the European Food Safety Authority,[97] which in turn was adopted on a multiple legal basis: Articles 37 (agriculture), 95 (the common market), 133 (common commercial policy), and Article 152(4)(b) (public health). This choice of legal basis seems inconsistent with Case 62/88, *Greece* v. *Council*, where the Court examined whether recourse to the legal basis for common commercial policy (Article 113 EEC) for a Regulation on the import of radioactively contaminated agricultural products infringed the Euratom Treaty's 'Health and Safety' provisions. The Court explained that those provisions (i.e., the Euratom's Health and Safety provisions) are intended to provide for the protection of *public health* in the nuclear sector, not to regulate trade between the Community and non-member countries. This Regulation, however, is very similar to the Fukushima Regulation,[98] although, as should be pointed out, the Fukushima Regulation is an implementing Regulation and not directly based on public health, but on the Food Safety Regulation.

In this context, we should also mention that shortly after Chernobyl, the Council adopted a Regulation laying down maximum permitted levels of radioactive contamination of foodstuffs and of feedingstuffs following a nuclear accident. The Regulation takes its legal basis in Article 31 Euratom. The European Parliament challenged it in Case 70/88, *European Parliament* v. *Council*.[99] It

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[96] Commission Implementing Regulation (EU) No 297/2011 of 25 March 2011 imposing special conditions governing the import of feed and food originating in or consigned from Japan following the accident at the Fukushima nuclear power station, OJ 2011 No. L80, 26 March 2011, p. 5. This Regulation has been updated and amended several times.

[97] See Article 53 (1) (b)(ii) of Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety, OJ 2002 No. L31, 1 February 2002, p. 1.

[98] Note that Regulation (EU) No 297/2011 (Fukushima) established a direct link to the Regulation on maximum permitted levels of radioactive contamination of foodstuffs and of feedingstuffs, which is based on the Euratom Treaty. The Fukushima Regulation used the pre-established maximum levels as reference values to judge the acceptability to place feed and food on the market (Article 2.3 of the Regulation). After amendments, this link is now gone.

[99] Case C-70/88, *European Parliament* v. *Council* [1991] ECR I-4529. The European Parliament challenged the regulation under Article 146 Euratom and Article 173 EEC. See also the interlocutory judgment of 22 May 1990 in Case C-70/88, *Parliament* v. *Council* [1990] ECR I-2041 (often referred to as the 'Chernobyl case'), where the Court gave the European Parliament

claimed that the appropriate legal basis should have been Article 100a EEC [internal market, now Article 114 TFEU], if necessary, in conjunction with Article 31 Euratom. The obvious reason for the European Parliament to challenge this Regulation was that the choice of legal basis had institutional consequences. Under Article 100a EEC, the co-operation procedure applied. The European Parliament would therefore have had greater influence than under Article 31 Euratom, where it is only to be consulted. We shall discuss this case further below. It suffices to say here that the Court rejected the plea that the legal basis was wrongly chosen. For our present purposes, we can observe that this question of legal basis has resurfaced.

In 2010, the Commission submitted a proposal for an amended Council Regulation.[100] The suggested legal basis is Article 31 Euratom. In the European Parliament's Opinion, it suggests instead Article 168(4)(b) TFEU (public health), which provides that the Parliament is co-legislator under the ordinary legislative procedure.[101] The Parliament points out that this provision provides for the adoption of common measures in the veterinary field, the direct objective of which is the protection of human health and that the Member States are responsible for monitoring compliance with the maximum permitted levels of radioactive contamination laid down in the Regulation through the surveillance of the safety standards of foodstuffs and feedingstuffs. The Council has not yet made a decision on the Commission proposal.[102] Note that at the time of Case 70/88, *European Parliament* v. *Council*, there was still no EU mandate for public health, except for the one provided under the Euratom.

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standing to challenge acts of the Council or the Commission to safeguards its prerogatives (the Court thereby reversed its earlier position on this issue, see Case 302/87, *European Parliament* v. *Council* [1988] ECR 5616). The Court dismissed the objection of inadmissibility raised by the Council and ordered the proceedings to continue with regard to the substance of the case (para 27).

[100] Proposal for a Council Regulation (Euratom) laying down maximum permitted levels of radioactive contamination of foodstuffs and of feedingstuffs following a nuclear accident or any other case of radiological emergency (Recast), COM(2010) 184 final.

[101] European Parliament legislative resolution of 15 February 2011 on the proposal for a Council regulation (Euratom) laying down maximum permitted levels of radioactive contamination of foodstuffs and of feedingstuffs following a nuclear accident or any other case of radiological emergency (recast), COM(2010) 184, OJ 2012 No. C188E, 28 June 2012, p. 79.

[102] The Council has not yet responded to the European Parliament's opinion.

4.2.4 Internal Market

The next cross-treaty area concerns the internal market, which was touched upon in the previous section. We mentioned the Council Regulation laying down maximum permitted levels of radioactive contamination of foodstuffs and feedingstuffs following a nuclear accident.[103] The Regulation lays down the procedure for determining the maximum permitted levels of radioactive contamination of foodstuffs and feedingstuffs that may be placed on the market. In the event of a nuclear accident or radiological emergency, the Commission may adopt a Regulation rendering applicable pre-established maximum permitted levels of radioactive contamination.[104] This Regulation was challenged in Case 70/88, *European Parliament* v. *Council*.[105] The European Parliament claimed that the appropriate legal basis should have been Article 100a EEC (internal market, now Article 114 TFEU), and if necessary, in conjunction with Article 31 Euratom. The European Parliament argued that the Regulation concerned not only the protection of the public against ionizing radiation, but also the establishment and functioning of the internal market. It also argued that the Euratom's 'Health and Safety' provisions only concern the protection of persons directly involved in the nuclear industry and that the provisions do not relate to 'secondary radiation', i.e., radiation emanating from contaminated products.

The Court held that such a restrictive interpretation of the Euratom provisions could not be accepted. It explained that their purpose is rather 'to ensure the consistent and effective protection of the health of the general public against the dangers arising from ionizing radiations, whatever their source'.[106] As to the

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[103] Council Regulation (Euratom) No 3954/87 of 22 December 1987 laying down maximum permitted levels of radioactive contamination of foodstuffs and of feedingstuffs following a nuclear accident or any other case of radiological emergency, OJ 1987 No. L371, 30 December 1987, p. 11. Two Commission Regulations followed: Commission Regulation (Euratom) No 944/89 of 12 April 1989, OJ 1989 No. L101, 13 April 1989, p. 17; and Commission Regulation (Euratom) No 770/90 of 29 March 1990. A couple of years later, the Council also adopted Council Regulation on the conditions for exporting foodstuffs and feedingstuffs. This Regulation was adopted on the basis of Article 113 EEC (now Article 207 TFEU).

[104] The Council may adapt or confirm the provisions in the Commission regulation. The Regulation also sets out a procedure for how to revise or supplement the maximum permitted levels.

[105] Case C-70/88, *European Parliament* v. *Council* [1991] ECR I-4529.

[106] Ibid., para 14. The AG was of the view that Title II, Chapter 3 'Health and Safety' was to ensure 'a consistent and effective protection of the health and safety of the public against the dangers

argument that the Regulation also (or exclusively) should have been based on Article 100a EEC, the Court recognised that the Regulation prohibits the placing on the market of foodstuffs and feedingstuffs with a level of radioactive contamination in excess of the maximum permitted levels. It also noted that one of the Regulation's objectives is to 'maintain the unity of the Common Market and avoid deflations of trade within the Community', but that the effect of harmonising the conditions for the free movement of goods within the Community is only 'incidental'. It rejected the plea that the legal basis was wrongly chosen.

The Court made a similar argument in Case C-187/93 *European Parliament* v. *Council*,[107] which concerns the delineation between the internal market and environmental provisions (i.e., in this case, only on the EC Treaty). This case concerned a Regulation on shipment of waste,[108] which had been adopted to implement the Basel Convention (1989) on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.[109] It established a prior written notification and consent procedure. The Regulation had been adopted on the environmental legal basis (Article 130s EEC)[110] but the European Parliament claimed that Articles 100a (internal market) and 113 EC (common commercial policy) should have been applied instead. The Court found that the Regulation

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arising from ionizing radiations'. The AG also stated: 'As has already been seen, the Parliament's three arguments are based on the idea that the EAEC Treaty, more particularly the health protection policy laid down by Article 30 et seq. of that Treaty, must be regarded as having a limited scope. I cannot accept such a restrictive view. In fact, in view of the serious risks to health arising from ionizing radiations, I think that Article 30 et seq. of the EAEC Treaty must be interpreted as meaning that they authorize the Community to protect the health of the public consistently and effectively […]. It therefore seems to me essential to regard Article 30 et seq. of the EAEC Treaty as being fully effective'. See Case C-70/88, *European Parliament* v. *Council* [1991] ECR I-4529, Opinion of AG Van Gerven, para 20–4.

[107] Case C-187/93, *European Parliament* v. *Council* [1994] ECR I-2857.

[108] Regulation 259/93 on the supervision and control of shipments of waste within, into and out of the European Community Council Regulation (EEC) No 259/93 of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community, OJ 1993 No. L30, 6 February 1993, p. 1.

[109] 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Basel, 22 Mar 1989, in force 5 May 1992, 1673 UNTS 57/ [1992] ATS 7/ 28 ILM 657 (1989).

[110] The predecessor to this Regulation was Council Directive 84/631/EEC of 6 December 1984 on the supervision and control within the European Community of the transfrontier shipment of hazardous waste, OJ 1984 No. L326, 13 December 1984, p. 31. That Directive was based on Articles 100a and 235 EC (now Articles 114 and 352 TFEU).

had only an ancillary effect of harmonising market conditions within the Community. It therefore endorsed the environmental legal basis.[111]

In this context, it should be pointed out that shipment of radioactive waste is governed by specific rules, based on the Euratom Treaty. In 1992, the Council adopted a Directive on the supervision and control of shipments of radioactive waste.[112] The Directive establishes a system of prior declaration. It takes its legal basis in Articles 31 and 32 Euratom. The Directive was amended in 2006 to guarantee consistency with other Community and international provisions, in particular the Joint Convention.[113] The Directive applies both to shipments between Member States and between the Community and third states.[114] In parallel to this instrument on radioactive waste, the Euratom also adopted a Regulation on shipments of *radioactive substances* between Member States.[115] The preamble of this Regulation announced that it was the removal of frontier controls (in 1993) that had made the introduction of the system necessary. The removal had deprived the Member State authorities of information previously received through controls on shipments of radioactive substances.

As already mentioned in the section above on environment, shipment of radioactive waste is also governed by specific rules on the international level. The Basel Convention (1989) states that it does not apply to radioactive waste provided it is covered by another international instrument.[116] In 1990, the IAEA adopted a code of good practice on the international transboundary movement

[111] This Regulation has been replaced with Regulation 1013/2006 on shipments of waste, which has also been challenged. See further the discussion trade below.
[112] Directive 92/3/Euratom of 3 February 1992 on the supervision and control of shipments of radioactive waste between Member States and into and out of the Community, OJ 1992 No. L35, 12 February 1992, p. 24 (now repealed). See also Commission Decision 2008/312/Euratom of 5 March 2008 establishing the standard document for the supervision and control of shipments of radioactive waste and spent fuel referred to in Council Directive 2006/117/Euratom, OJ 2008 No. L107, 17 April 2008, p. 32.
[113] Council Directive 2006/117/Euratom of 20 November 2006 on the supervision and control of shipments of radioactive waste and spent fuel, OJ 2006 No. L337, 5 December 2006, p. 21. Note that Directive 92/3/Euratom applied only to 'radioactive waste', but not to 'spent fuel', which can be used for reprocessing. The new Directive covers both 'radioactive waste' and 'spent fuel'.
[114] Cf. the discussion on trade below.
[115] Council Regulation (Euratom) No 1493/93 of 8 June 1993 on shipments of radioactive substances between Member States, OJ 1993 No. L148, 19 June 1993, p. 1.
[116] Article 1.3 of the Basel Convention.

of radioactive waste, which all EU Member States subscribed to.[117] Those rules were later made legally binding by the adoption of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, to which the Community acceded in 2005.[118] Some of the rules in the Joint Convention are now included in the Nuclear Waste Directive.[119]

4.2.5 Trade

The Court has also addressed the boundary between radiation protection (Euratom provisions) and common commercial policy (TFEU provisions). We have already briefly touched upon Case 62/88, *Greece* v. *Council*,[120] which concerned the Council Regulation on the conditions governing imports of agricultural products originating in third countries following the accident at the Chernobyl nuclear power plant.[121] The Regulation was adopted just one month

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[117] Code of Practice on the International Transboundary Movement of Radioactive Waste, INFCIRC/386, 13 November 1990.

[118] Council Decision 2005/84/Euratom of 24 January 2005 approving the accession of the European Atomic Energy Community to the 'Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management', OJ 2005 No. L30, 3 February 2005, p. 10. See, in particular, Chapter 5 of the Joint Convention.

[119] Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community Framework for the Responsible and Safe Management of Spent Fuel and Radioactive Waste, OJ 2011 No. L199, p. 48. The Directive includes a reference to the Basel Convention. Note also the Cotonou Agreement, which does not include a specific provision on shipment of radioactive waste, but a Joint Declaration, which refers to the Euratom Directive on shipment (now Directive 2006/117) and to the Euratom BSS Directive. It also underlines that the parties should accede to the Basel Convention. See Declaration IX, Joint Declaration on Article 49(2) on trade and environment. Partnership agreement (2000/483/EC) between the members of the African, Caribbean and Pacific Group of States on the one part, and the European Community and its Member States, on the other part, signed in Cotonou on 23 June 2000, OJ 2000 No. L317, 15 December 2000, p. 3. The 4th Lomé Convention contained specific provisions governing the export of radioactive waste from the Community to non-member States parties to that Convention. It included a prohibition of the import and export of radioactive waste. See Article 39 of the Fourth ACP-EEC Convention signed at Lomé on 15 December 1989.

[120] Case C-62/88, *Greece* v. *Council* [1990] ECR I-1527.

[121] Council Regulation (EEC) No 1707/86 of 30 May 1986 on the conditions governing imports of agricultural products originating in third countries following the accident at the Chernobyl nuclear power station, OJ 1986 No. L146, 31 May 1986, p. 88. This Regulation was extended by Regulation (EEC) No 3020/86, OJ 1986 No. L280, 1 October 1986, p. 79; Regulation (EEC) No 624/87, OJ 1987 No. L58, 28 February 1987, p. 101; Council Regulation (EEC) No 3955/87 of 22 December 1987, OJ 1987 No. L371, 30 December 1987, p. 14 (this was the Regulation challenged by Greece); Council Regulation (EEC) No 737/90 of 22 March 1990, OJ 1990 No. L82, 29 March 1990, p. 1. It was replaced by Council Regulation (EC) No 733/2008 of 15 July 2008 on the conditions governing imports of agricultural products originating in third countries following the accident at the Chernobyl nuclear power station, OJ 2008 No. L201, 30 July 2008, p. 1; amended by Council Regulation (EC) No 1048/2009 of 23 October 2009, OJ 2009 No. L290, 6 November 2009, p. 4. All these Regulations were preceded by Council Regulation (EEC) No 1388/86 of 12

after the Chernobyl accident. It requires the Member States to verify that certain agricultural products originating in non-member countries comply with maximum permitted levels of radioactive contamination. Non-compliance may lead to a prohibition of the importation of the product. The Regulation also sets up a system for the exchange of information, organised by the Commission. It takes Article 113 EEC (common commercial policy, now Article 207 TFEU) as its legal basis.

Greece claimed that the legal basis was wrong and brought an action for annulment. In the view of Greece, it should instead have been based on Article 31 Euratom or Articles 130r and 130s EEC (environmental protection), possibly in conjunction with Article 235 EEC (now 352 TFEU).[122] The Court pointed out that the choice of legal basis had to be based on objective factors, which were amenable to judicial review. The Court examined the objective and content of the Regulation and noted that the Regulation preamble announced that:

> [T]he Community must continue to ensure that agricultural products […] likely to be contaminated are introduced into the Community only according to common arrangements. […] [T]he common arrangements should safeguard the health of consumers, maintain, without having unduly adverse effects on trade between the Community and third countries, the unified nature of the market and prevent deflections of trade.

The Court also pointed out that the Regulation establishes uniform rules on conditions under which agricultural products likely to be contaminated by radioactivity may be imported into the Community. It concluded that as the Regulation's objective and content was intended to regulate trade between the Community and non-member countries, it came within the sphere of the common commercial policy.

May 1986 on the suspension of the import of certain agricultural products originating in certain third countries, OJ 1986 No. L127, 13 May 1986, p. 1. While this Regulation suspended imports of agricultural products, later Regulations replaced the suspension with a system that reinstated imports, provided that maximum permitted levels were imposed.

[122] The Court pointed out that the use of Article 235 EEC as the legal basis for a measure is justified only where no other provision of the Treaty gives the Community institutions the necessary power to adopt the measure in question. It referred to Case 242/87, *Commission* v. *Council* [1989] ECR 1425, para 6.

The Court also examined whether there was an infringement of the Euratom Treaty.[123] It found that recourse to Article 113 EEC (common commercial policy, now Article 207 TFEU) could not be excluded on the ground that the provisions on 'Health and Safety' of the Euratom Treaty lay down specific rules governing the basic standards for protection of the health of the general public against the dangers from ionizing radiation. The Court explained that those provisions are 'intended to provide for the protection of public health in the nuclear sector' and that they are 'not intended to regulate trade between the Community and non-member countries'. It concluded that Article 113 EEC Treaty was the appropriate legal basis and that the submission could not be upheld.

It should be pointed out that a few years later, the Court held in the *WTO Opinion*[124] that as the Euratom Treaty does not contain provisions relating to external trade, there is nothing to prevent agreements concluded pursuant to Article 113 EC Treaty from extending to international trade in Euratom products.[125] And in a later case,[126] the Court suggested that the Euratom's lack of provisions on common commercial policy was the reason the Agricultural Products Regulation in *Greece* v*. Council* was adopted on the EEC Treaty as a legal basis.

We should add here that in *Greece* v. *Council*,[127] the Court also examined the boundary between common commercial policy and environmental protection. Scholars have referred to this delimitation as 'complex' and 'artificial'.[128] In this case, the Court pointed out that the maximum permitted levels of radioactive contamination are indeed set up to protect public health, but the fact that public health is also one of the objectives of Community action in environmental

[123] Case C-62/88, *Greece* v. *Council*, para 16–17.
[124] Opinion 1/94, WTO [1994] ECR I-5267.
[125] See also Opinion 2/00 where the Court states that 'measures regulating international trade often pursue a wide range of different objectives, but this does not mean that they must be adopted on the basis of the various Treaty provisions relating to those objectives'. Opinion 2/00, Cartagena Protocol [2001] ECR I-9713, para 35.
[126] In Case C-61/03, *Commission* v*. United Kingdom* [2005] ECR I-2477, para 44, the Court holds '[i]n so far as that Treaty does not provide the Community with a specific instrument in order to pursue that objective, it is possible that appropriate measures may be adopted on the basis of the relevant provisions of the EC Treaty (see, to that effect, Case C-62/88, *Greece* v*. Council* [1990] ECR I-1527)'.
[127] Case C-62/88, *Greece* v. *Council*, para 18–20.
[128] Piet Eeckhout, *EU External Relations Law* (Oxford: Oxford University Press, 2011), p. 69.

matters could not remove the Regulation from the sphere of the common commercial policy.[129] The Court explained that the provisions that confer powers on the Community to undertake specific action on environmental matters leave intact the Community powers under other provisions, even if the measures under those provisions pursue at the same time any of the objectives of environmental protection.[130]

The Court has also addressed this delimitation in some other cases. The Court's reasoning in these cases can possibly also be applied to the delimitation between common commercial policy and radiation protection. Note for example, the Court's Opinion on the Cartagena Protocol,[131] an agreement that applies to the transboundary movement, transit, handling, and use of living modified organisms. The authorising decision for concluding the Protocol had been based on an environmental legal basis (now Article 192 TFEU), but the Commission was of the view that it should have been based also on the legal basis for a common commercial policy (now Article 207 TFEU). The Court found that trade with living modified organisms was only one aspect of the Cartagena Protocol and that the Protocol's main purpose or component was environmental protection. The Court also held that the Commission's interpretation would render the specific environmental provisions nugatory, because as soon as a Community action would be held liable to affect trade, a measure would have to be regarded as falling under the common commercial policy. The decision was rightly based on a single legal basis and the environmental legal basis was the correct one.

A few years later, the Court had to decide on a similar question. In the two parallel cases C-94/03[132] and C-178/03[133] (the 'Rotterdam Convention Cases'), the Commission had brought an action for annulment of a Council Decision on

[129] Case C-62/88, *Greece* v. *Council*, para 18.
[130] Ibid., para 19. The Court also pointed out that this interpretation is confirmed by Article 130r(2), which stipulated that 'environmental protection requirements shall be a component of the Community's other policies'. The Court points out that this implies that a Community measure cannot be part of Community action on environmental matters because it takes account of those requirements. See ibid., para 20.
[131] Opinion 2/00 [2001] ECR I-9713.
[132] Case C-94/03, *Commission* v. *Council* [2006] ECR I-1.
[133] Case C-178/03, *Commission* v. *European Parliament and Council* [2006] ECR I-107.

approval of the Rotterdam Convention and the Regulation on export and import of dangerous chemicals,[134] implementing that Convention.[135] The Commission claimed that those two instruments should have been based on Article 133 EC (common commercial policy) instead of Article 175 EC (environment policy). The Court found that the instruments contained elements of both common commercial policy and environmental policy. When examining the centre of gravity, the Court found that these components were indissociably linked, without one being secondary or indirect in relation to the other. Therefore, it was necessary to apply a dual legal basis.[136] The Court annulled the Decision and the Regulation on the ground that Articles 133 and 175 EC should have been applied as a joint legal basis.

We should finally note Case C-411/06, *Commission* v*. European Parliament*,[137] which concerned Regulation (EC) 1013/2006 on shipments of waste. It implements the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.[138] The Regulation established a prior written notification and consent procedure which governed both intra-Community and extra-Community trade. This Regulation had been adopted on the environmental legal basis (now Article 192 TFEU). The Commission brought the Regulation for annulment. It claimed that the legal basis for common

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[134] 1998 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, Rotterdam, 10 Sept 1998, in force 24 February 2004, 2244 UNTS 337 / [2004] ATS 22/ 38 ILM 1 (1999). See also Council Decision 2003/106/EC of 19 December 2002 concerning the approval, on behalf of the European Community, of the Rotterdam Convention on the Prior Informed Consent Procedure for certain hazardous chemicals and pesticides in international trade, OJ 2003 No. L63, 6 March 2003, p. 27. Regulation (EC) No 689/2008 of the European Parliament and of the Council of 17 June 2008 concerning the export and import of dangerous chemicals, OJ 2008 No. L204, 31 July 2008, p. 1, now replaced by Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals, OJ 2012 No. L201, 27 July 2012, p. 60.

[135] Pieter Jan Kuijper, Jan Wouters, Frank Hoffmeister, Geert de Baere, and Thomas Ramopoulos, *The Law of EU External Relations: Cases, Materials, and Commentary on the EU as an International Legal Actor* (Oxford: Oxford University Press, 2013), pp. 825–9. See also Eeckhout, *EU External Relations Law*, pp. 39–56.

[136] Case C-94/03, *Commission* v*. Council* [2006] ECR I-1, paras 42–8. The Court also pointed out that recourse to a dual legal basis was not possible where the legislative procedure laid down were not compatible or where the use of two legal bases would undermine the European Parliament's procedural rights. The Court noted that the Council had adopted both instruments by a qualified majority so there was no obstacle in applying a joint legal basis.

[137] Case C-411/06, *Commission* v. *European Parliament* [2009] ECR I-7585.

[138] Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste, OJ 2006 No. L190, 12 July 2006, p. 1.

commercial policy (now Article 207 TFEU) should be added for the part of the Regulation that concerned trade with third countries. The Court noted that the preamble referred to environmental protection, but that it did not refer to objectives falling within the common commercial policy. It also noted that the prior written notification and consent procedure could be described as a typical instrument of environmental policy. The Court concluded that environment was the main or predominant objective and component of the Regulation and that there was no justified recourse to a joint legal basis. Recall here that there is a separate Euratom Directive on shipments of radioactive waste and that the Court's reasoning therefore could be of direct significance should that Directive be challenged.[139]

4.2.6 Connecting Some Dots

Let us finally clarify a few things regarding Case C-62/88, *Greece* v. *Council* (Regulation on import of agricultural products) and Case 70/88, *European Parliament* v. *Council* (radioactive levels for foodstuffs and feedingstuffs). Both cases raise the issue of overlaps between the treaties (as well as between different policy areas within the EC Treaty). In *Greece* v. *Council*, the Court held that the contested Regulation was about regulating trade between the Community and third states. The Regulation was 'in the sphere of the common commercial policy'. By contrast, in *European Parliament* v. *Council*, the Court held that the contested Regulation was about public health, and that the effect on (internal) trade was only 'incidental'.

But why did the Court come to such different conclusions when the Regulations are so similar[140]? They both lay down maximum permitted levels of radioactive contamination. A previous version of the Regulation on import of agricultural products even suggested a need for coherence between the external and internal measures: 'the levels applicable to third countries might need to be re-examined in the light of Community decisions regarding *internal* permitted contamination

[139] Council Directive 2006/117/Euratom.
[140] This was also an argument put forward by Greece in *Greece v. Council*. See Case C-62/88, *Greece* v. *Council* [1990] ECR I-1527, Opinion of AG Darmon, para 20.

levels'.[141] That formulation disappeared when the Regulation was later amended (at the time Greece challenged the Regulation, it was gone). We suggest that is possible to understand the difference between the cases in terms of standard setting (i.e., *European Parliament* v. *Council*) and market access (i.e., *Greece* v. *Council*). The Regulation on import of agricultural products would thus have to be based on Article 113 EEC [commercial policy] as it concerned market access. In a similar vein, the Regulation on foodstuffs and feedingstuffs would have to be based on the 'Health and Safety provisions' in the Euratom Treaty as it concerned standard setting. A similar argument was made in the *WTO Opinion*.[142] The Council argued that the TBT and SPS agreements were about standard setting, and that they should have been based on Article 43 EC [agriculture]. The Court rejected this reasoning; it held that they concerned market access.

4.3 Border Disputes

This section examines two cases that concern 'border disputes': the *MOX Plant* case and the *Temelín* case. Both cases concern a nuclear power plant situated at the border of a Member State. Does the Euratom offer any added value in cross-border situations?

4.3.1 The MOX Plant Case Revisited

Much has been written about the *MOX Plant* case,[143] but very little attention has been devoted to its implications for the relationship between the EU Treaties and the Euratom Treaty. The facts are well known, but we shall repeat them here for the sake of clarity. The case concerns the dispute between Ireland and the UK on the operation of a MOX plant, situated in Sellafield, in the UK, on the coast of the Irish Sea. A MOX plant produces mixed oxide fuel ('MOX'), which can be used as

[141] Council Regulation (EEC) No 1707/86 of 30 May 1986 on the conditions governing imports of agricultural products originating in third countries following the accident at the Chernobyl nuclear power-station, OJ 1986 No. L146, 31 May 1986, p. 88. Emphasis added.
[142] Opinion 1/94, WTO [1994] ECR I-5267, paras 28–34.
[143] Case C-459/03, *Commission* v. *Ireland* [2006] ECR I-4635. On the dispute leading up to this case, see Robin Churchill and Joanne Scott, 'The Mox Plant Litigation: The First Half-Life' (2004) 53 *International and Comparative Law Quarterly* 643–76 at 664–6.

fuel in light water reactors.[144] In 1993, the UK authorities authorised the construction of the plant, and in 2001 they authorised its operation.

Ireland opposed the construction of the plant from the start. It questioned the soundness of an environmental statement presented by the BNFL on which the UK authority based its authorisation decision.[145] Ireland also questioned the decision concerning the economic justification for the plant, which had been taken to meet the requirements laid down in the Euratom BSS Directive. It should also be pointed out that the Commission had delivered a positive opinion pursuant to Article 37 Euratom on the plan for disposal of radioactive waste arising from the operation of the plant.[146]

In 2001, Ireland instituted proceedings against the UK before an arbitral tribunal established under the United Nations Convention on the Law of the Sea (UNCLOS), alleging breaches by the UK of various UNCLOS provisions.[147] Ireland claimed, in brief, that the UK had failed to take necessary measures to prevent, reduce and control pollution of the marine environment concerning intended discharges or the accidental releases of radioactive materials; failed to assess the risk of terrorist attacks; failed to cooperate with Ireland by refusing to share information and to carry out an appropriate environmental impact assessment; and neglected to properly and fully assess the potential effects of the operation of the plant and potential effects of international movements of radioactive materials to be transported to and from the MOX plant.

The Commission brought the matter before the ECJ, contending that Ireland had infringed Community rules by submitting a dispute to the arbitral tribunal under UNCLOS. The Commission claimed that Ireland had failed to respect the exclusive

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[144] 'MOX' is a blend of plutonium and uranium. The plutonium comes from either spent commercial-reactor nuclear fuel or from military facilities. Producing MOX is a way of recycling surplus weapons-grade plutonium from military sources, instead of keeping it in storage.
[145] Case C-459/03, *Commission* v. *Ireland*, para 23.
[146] The Commission concluded that 'the implementation of the plan for the disposal of radioactive wastes arising from the operation of the BNFL Sellafield mixed oxide fuel plant, both in normal operation and in the event of an accident of the type and magnitude considered in the general data, is not liable to result in radioactive contamination, significant from the point of view of health, of the water, soil or airspace of another Member State' (OJ 1997 C68, p. 4).
[147] Case C-459/03, *Commission* v. *Ireland*, para 35. As the Court clarified, Ireland was 'essentially criticising the UK for granting authorisation to operate the MOX plant without having met a number of obligations arising under the Convention' (para 87).

jurisdiction vested in the ECJ by Article 292 EC (now Article 344 TFEU) to rule on any dispute concerning the interpretation and application of Community law by bringing the dispute before the arbitral tribunal concerning the interpretation and application of provisions of the UNCLOS Convention involving obligations assumed by the Community in the exercise of its external competence in regard to protection of the environment.[148]

Ireland contended that the UNCLOS involved stricter obligations than the ones provided for under Community law[149] and that no Community legislation existed so far as concerns the discharge of radioactive substances into the marine environment, and cooperation in the area of the transport of such substances by sea.[150] Ireland also pointed out that '[a]s Euratom is not a party to the Convention and no measure adopted on the basis of the [Euratom] Treaty is included in the appendix to the Declaration of Community competence, no competence based on that Treaty can be attributed to the Community within the context of the Convention'.[151]

The Court pointed out that as the Convention is a mixed agreement, it was necessary to examine whether the Convention provisions at issue came within the scope of Community competence.[152] The Court used the Declaration of Community competence as a reference. It found that the matters covered by the Convention were 'very largely regulated by Community measures, several of which are mentioned expressly in the appendix to that declaration'.[153] The Court established that the Convention provisions at issue came within the scope of Community competence which the Community had elected to exercise by acceding to the Convention.[154] It also held that those provisions, therefore, form

[148] Ibid., para 80.
[149] Ibid., para 72.
[150] Ibid., para 73.
[151] Ibid., para 74.
[152] Ibid., para 86.
[153] Ibid., paras 109 and 110. One of these Community measures was the EIA Directive. The Court declared that Ireland's complaint alleging failure to meet the obligation to carry out a proper assessment must be subject of that Directive (para 111). The same observation held true for Ireland's complaint relating to ensuring the measures necessary to prevent, reduce, and control pollution in the Irish Sea were taken (para 114).
[154] Ibid., para 120.

an integral part of the Community legal order.[155] Thus, this was a dispute concerning the interpretation or application of the EC Treaty, within the terms of Article 292 EC.[156]

The Court also stated that the ECJ's jurisdiction was exclusive, such as to preclude a dispute being brought by a Member State before an arbitral tribunal.[157] The Court pointed out that, in addition to UNCLOS, Ireland had invoked two EC Treaty Directives and two Euratom Treaty Directives[158] 'for purposes of their interpretation and application in the context of proceedings seeking a declaration that the UK had breached the provisions of those instruments'.[159] This was at variance with the Member States' obligation in Article 292 EC and 193 Euratom, 'to respect the exclusive nature of the Court's jurisdiction'.[160] As some of the measures came within the scope of the EC Treaty and some within the scope of the Euratom Treaty, Ireland had breached both Articles 292 EC and 193 Euratom.[161] The Court stated that the institution of the proceedings before the Arbitral Tribunal involved 'a manifest risk that the jurisdictional order laid down in the Treaties and, consequently, the autonomy of the Community legal system may be adversely affected'.[162]

The Court finally noted that the Member States and the EU institutions have an obligation of close cooperation when they conclude a mixed agreement.[163] This

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[155] Ibid., para 126.
[156] Ibid., para 127.
[157] Ibid., paras 122–3. The Court referred here to Opinion 1/91 [1991] ECR I-6079, para 35, and Opinion 1/00 [2002] ECR I-3493, paras 11 and 12.
[158] Council Directive 85/337/EEC (EIA Directive); and Council Directive 90/313/EEC (freedom of access to information on the environment); Council Directive 92/3/Euratom (Shipments of radioactive waste); and Council Directive 96/29/Euratom (Euratom BSS Directive). 1. See Case C-459/03, *Commission* v. *Ireland* paras 146–7.
[159] Case C-459/03, *Commission* v. *Ireland*, para 151.
[160] Ibid., para 152.
[161] Ibid., para 153.
[162] Ibid., para 154. The Commission also contended that Ireland had breached its obligations under Article 10 EC (now Article 4(3) EU) and Article 192 Euratom, which are both an expression of the duty of cooperation (para 174). The Commission contended that Ireland had breached these obligations by exercising a competence that belongs to the Community and by bringing proceedings unilaterally without having first informed and consulted the EU institutions (para 158). The Court held that the Member States' obligation under Article 292 EC to respect the Court's exclusive jurisdiction 'must be understood as a specific expression of Member States' more general duty of loyalty resulting from Article 10 EC' (para 169). As that complaint focused on the same conduct on the part of Ireland, it was not necessary to also establish that there had been a failure to comply with the general obligation under Article 10 EC (paras 170–1).
[163] Ibid.,para 175.

involved a duty for Ireland to inform and consult the EU institutions prior to instituting dispute-settlement proceedings.[164] The Court pointed out that 'the same duty of prior information and consultation was also imposed on Ireland by virtue of the [Euratom] Treaty in so far as that Member State contemplated invoking provisions of that Treaty and measures adopted pursuant to it within the framework of the proceedings which it was proposing to bring before the Arbitral Tribunal'.[165] The risk was that a judicial forum other than the ECJ would rule on the scope of obligations imposed on the Member States pursuant to Community law.[166]

The Court relied on EC rules in the first part of its reasoning, because UNCLOS was a mixed agreement under the EC Treaty and not under the Euratom Treaty. In the second part of the case, the Court emphasised that the Euratom Treaty contained corresponding provisions. It also acknowledged the existence of Euratom legislation. In order to understand the implications for the Euratom, we also need to examine the *Temelín* Case.

4.3.2 The Temelín Case

The *Temelín* Case[167] concerned the construction of two nuclear reactors in the Czech Republic, located 50 km from the Austrian border. The Temelín plant was operated by ČEZ, a Czech energy company. The construction work started in 1986, and the plant commenced its operation in 2000. The plant had been the subject of a long-standing dispute between the Czech Republic and Austria.[168] In 2001 (in the so-called 'Melk Process'), the Czech Republic and Austria adopted a Protocol under the mediation of the Commission. They declared that they would

[164] Ibid., para 179.
[165] Ibid., paras 180–2.
[166] Ibid., para 177.
[167] Case C-115/08, *Oberösterreich* v. *ČEZ* ('the *Temelín* Case') [2009] ECR I-10265. For a discussion on this case, see Markus Möstl, 'Case C-115/08, Land Oberösterreich v. ČEZ, Judgment of the Court of Justice (Grand Chamber) of 27 October 2008' (2010) 47 *Common Market Law Review* 1221–32; Wolf-Georg Schärf, 'The Temelín-Judgement of the European Court of Justice' (2010) 85 *Nuclear Law Bulletin* 79–91; and Sebastian Wolf, 'Euratom, the European Court of Justice, and the Limits of Nuclear Integration in Europe' (2011) 12 *German Law Journal*, 1637–58.
[168] There were concerns that Austria would veto the Czech Republic's accession to the EU. For an account on the negotiations between Austria and the Czech Republic on the Temelín plant, see Gunnar Sjöstedt and Rudolf Avenhaus, *Negotiated Risk: International Talks on Hazardous Issues* (Berlin, Heidelberg: Springer Berlin Heidelberg, 2009).

take certain safety measures and develop an energy partnership.[169] The Protocol was annexed to the Czech Republic's Treaty of Accession to the EU.

Some private actors were dissatisfied with the outcome of the negotiations. In 2001, the Land Oberösterreich, a landowner in a province of Upper Austria (situated 60 km from the plant),[170] brought actions before a provincial court in Austria. The Land Oberösterreich was seeking to force ČEZ to put an end to the actual or potential nuisance relating to the ionising radiation potentially emanating from the plant. It based its complaint on paragraph 364(2) of the Allgemeines bürgerliches Gesetzbuch (ABGB), which stipulated:

> The owner of land may prohibit his neighbour from producing effects, emanating from the latter's land, by effluent, smoke, gases, heat, odours, noise, vibration and the like, in so far as they exceed normal local levels and significantly interfere with the usual use of the land.

According to this provision, a landowner could prohibit a neighbour from 'producing effects'. However, another provision, paragraph 364a of the ABGB, stipulated that if the neighbour's installation had been officially authorised, then the landowner was only entitled to bring court proceedings for compensation for damage *caused*.[171] This meant that an industrial installation on Austrian territory that had been authorised by Austrian authorities could *not* be subject to an action for an injunction to prevent a potential nuisance caused by that installation to neighbouring properties, brought on the basis of paragraph 364(2) of the ABGB.[172] Such installations were 'protected' under paragraph 364a ABGB. But an undertaking, which had an industrial installation situated in the territory of another Member State, where it has received authorisations granted by the authorities of that Member State, could not rely on paragraph 364a.[173] These rules seemed to give rise to a difference in treatment between

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[169] It was also decided that Austria should have a watching brief over the safety in the Temelín plant. This was an 'atypical mechanism' according to the Commission, which played an active role in the negotiations. See Communication of 6 November 2002 from the Commission to the Council and the European Parliament, Nuclear safety in the European Union, COM(2002) 605 final.
[170] *Temelín*, paras 38–49.
[171] Paragraph 364a stated: 'If the interference is caused by […] an officially authorised installation on the neighbouring land, the landowner is entitled only to bring court proceedings for compensation for the damage caused'.
[172] Such an undertaking could only be subject to a claim for damages for harm actually caused (paragraph 364a ABGB). See *Temelín*, para 93.
[173] Ibid., para 95.

undertakings with an installation officially authorised in Austria and undertakings with installations authorised by authorities of another Member State. The Austrian court therefore asked the ECJ for a preliminary ruling on the compatibility of these provisions with Community law. The Austrian court based it question for reference on some EC Treaty provisions that may preclude such a difference in treatment.[174]

4.3.2.1 The Analysis of the Advocate General

Advocate General Maduro began his Opinion[175] by articulating that the solution to be provided by the judgment 'should lead each party to internalise in its own decision the interests of the other as it is such failure that lies at the origin and heart of this case'.[176] He pointed out that neither the EC, nor the Euratom, provided a complete regulation of the matter. The interpretation he then proposed was guided by the goal of making national authorities attentive to the impact of their decisions on the interests of other Member States. This was, in his view, 'at the core of the project of European integration and to be embedded in its rules'.[177] The AG then assessed the issues arising under Article 43 EC (right of establishment, now Article 49 TFEU).[178] He concluded that a national rule, such as the Austrian legislation, constituted an unjustifiable restriction on the rights guaranteed by Article 43 EC.[179]

The AG also noted that there was Euratom legislation setting down rules and standards in relation to the construction and operation of nuclear installations, but that those rules 'are only aimed at regulating the conditions under which a nuclear facility should be authorised to operate and do not aim to regulate possible civil law conflicts between the owners of such facilities and those who

[174] Articles 10, 12, 28 and 43 EC.
[175] Case C-115/08, *Oberösterreich* v. *ČEZ* ('*Temelín* case') [2009] ECR I-10265, Opinion of AG Poiares Maduro.
[176] Ibid., para 1.
[177] Ibid.
[178] Ibid., para 7.
[179] The AG clarified that 'administrative authorisations of other Member States may be refused recognition if such a refusal is non-discriminatory in nature and is properly justified on grounds of public policy, public security or public health and provided that proper account is taken of compliance with relevant Community rules and the interests of all affected parties'. Ibid., para 24.

may be affected by their operation'.[180]According to the AG, the Euratom rules did not imply that any national rules, which may have an effect on the operations of a nuclear facility, are necessarily contrary to Community law:

> The fact that a particular installation complies with standards set down by governmental authorities does not imply that such an installation will be immune from proceedings in relation to the impact which its activities may have on the civil law rights of others [...] while compliance with the [Euratom] rules by the Temelín facility may be relevant for other purposes in the present case, it is not in itself enough to exclude the application of the civil law rights of others.[181]

As we have seen, the AG based his reasoning on EC Treaty rules. The ECJ did not follow the advice of Advocate General Maduro. Instead, the Court based its reasoning on the Euratom Treaty.

4.3.2.2 The Judgement of the European Court of Justice

The ECJ first pointed out that the fact the Austrian court had worded the referred question with reference to certain Community law provisions did not preclude it from providing to the national court all the elements of interpretation that may be of assistance in adjudicating the case.[182] It then noted that the dispute in the main proceedings concerned the issue of whether an industrial activity may be pursued and what technical conditions may be imposed because of an actual or potential nuisance allegedly caused to land situated in another Member State.[183]

The Court found that the industrial activity fell within the scope of application of the Euratom Treaty[184] and that '[a]n examination of the principles and specific provisions of the [Euratom] Treaty and certain measures adopted pursuant

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[180] Ibid., para 13.
[181] Ibid. The AG explained: 'a restaurant which complies with planning and hygiene regulations will not, for this reason, be immune from actions from customers claiming to have suffered food poisoning while dining there or from neighbours offended by the smells produced by the kitchens'. Ibid.
[182] *Temelín*, para 81.
[183] Ibid., para 82.
[184] Ibid., para 83. The Court also pointed out that it had 'identical jurisdiction' under Article 234 EC and Article 150 Euratom (now repealed). The fact that the national court referred its question pursuant Article 234 EC did not prevent the ECJ from providing to the national court all elements which may be of assistance in adjudicating the case, including when they came under the Euratom Treaty and involved the Court ruling by virtue of its jurisdiction under Article 150 Euratom (para 84).

thereto will [...] enable a response to be given to the queries raised by the national court'.[185] It also reminded that Article 305 EC (now Article 106a(3) Euratom) expressly provides that the provisions of the EC Treaty shall not derogate from those of the Euratom Treaty.[186]

The Court then examined the principle of prohibition of discrimination of nationality.[187] It first had to establish that the principle applied to the Euratom Treaty. The Austrian court had referred to Article 12 EC, which prohibits any discrimination on grounds of nationality within the scope of application of the EC Treaty.[188] The ECJ found that the principle in Article 12 EC forms part of the general principles, and that it could also be applied in the context of the Euratom Treaty:

> Although the [Euratom] Treaty does not contain any explicit provision which corresponds to that article of the EC Treaty, the fact remains that, as the Court pointed out very early on, the principle laid down in Article 12 EC forms part of the 'principles' of the Community and the rule on equal treatment with nationals is one of the fundamental legal provisions of the Community.[189]

The Court then explained:

> [I]t would appear to be contrary to both the purpose and the consistency of the treaties to allow discrimination on grounds of nationality, which is prohibited under the EC Treaty by virtue of Article 12 EC, to be tolerated within the scope of application of the [Euratom] Treaty.
>
> It must therefore be recognised that although the principle of prohibition of any discrimination on grounds of nationality within the scope of application of Community law is expressly laid down only in Article 12 EC, it is a general principle which is also applicable under the [Euratom] Treaty.[190]

The Court then examined whether there was a difference in treatment on grounds of nationality within the scope of application of the Euratom Treaty. It pointed out that it followed from its case law (under the EC Treaty) that 'the rules regarding equality of treatment between nationals and non-nationals

[185] Ibid., para 86.
[186] Ibid., para 85.
[187] Ibid., paras 87–107.
[188] Ibid., para 87.
[189] Ibid., para 88.
[190] Ibid., paras 90–91.

forbid not only overt discrimination by reason of nationality […] but also all covert forms of discrimination'.[191] The Court established that the difference in treatment in the Austrian law, which worked to the detriment of installations that have received official authorisation in a Member State other than Austria, led to the same outcome as a difference in treatment on grounds of nationality.[192]

The Court then noted that although the Euratom Treaty did not contain a title relating to nuclear energy installations, the fact remained that the 'Health and Safety' provisions were intended to provide for the protection of public health in the nuclear sector.[193] The Court referred to its previous case law where it had held on a number of occasions that those provisions are to be interpreted broadly in order to give them practical effect.[194] It also pointed out that even though the Euratom Treaty does not grant the Community competence to authorise the construction or operation of nuclear installations, it possesses legislative competence to establish an authorisation system under Articles 30 to 32 Euratom. Such a measure supplements the basics standards referred to in Article 30 Euratom.[195]

The Court further held that Article 37 Euratom must be interpreted as meaning that the Commission must be provided with general data relating to any plan for the disposal of radioactive waste before such disposal is authorised by the Member States' competent authorities. The Court noted the importance of guidelines the Commission can give to Member States and that the Member States must be able to examine them in detail and before the authorisation is issued.[196] The Court stated that the granting of official authorisations for the

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[191] Ibid., para 92.
[192] Ibid., para 97.
[193] Ibid., para 99.
[194] Ibid., para 100. The Court also referred to Case C-29/99, *Commission* v. *Council* [2002] ECR I-11221 ('*Nuclear Safety* Case'), where it held that it was apparent that the protection could not be achieved without controlling the sources of harmful radiation, and that 'it was inappropriate, in order to define the Community's competences, to draw an artificial distinction between the protection of the health of the general public and the safety of sources of ionising radiation' (para 76).
[195] Ibid., para 103.
[196] Ibid., para 104. The Court referred here to Case 187/87, *Land de Sarre*, paras 12–16; and Case C-61/03, *Commission* v. *United Kingdom* [2005] ECR I-2477, para 39.

construction and operation of nuclear installations, in their various aspects relating to health protection against the dangers of ionising radiations for the general public, comes within the scope of application of the Euratom Treaty.[197]

The Court then held that the action in the main proceedings was 'aimed at determining whether the actual effects or potential effects due to current or future ionising radiation emanating from the Temelín nuclear power plant justify, notwithstanding the authorisations granted in respect of that power plant, ČEZ being ordered to adapt or even close it, in order to prevent or mitigate such effects or risks'.[198] The Court found that the difference in treatment came within the scope of application of the Euratom Treaty,[199] but that this was 'not by itself sufficient to substantiate a conclusion that the national provisions are incompatible with the prohibition of discrimination on grounds of nationality under the [Euratom] Treaty'.[200] The Court also had to ascertain whether the failure to take into account of the authorisations granted in respect of nuclear installations situated in Member States other than Austria, may not be justified by objective considerations unrelated to nationality.[201] The Court found that aims of a purely economic nature could not justify such discrimination,[202] and neither could justifications relating to protection of life, health, the environment, or property rights.[203]

The Court then examined briefly the Euratom's 'Health and Safety' provisions. It also noted that it had previously emphasised the Commission's role in this area, 'owing to its unique overview of developments in the nuclear power industry

[197] *Temelín*, para 105.
[198] Ibid., para 106.
[199] Ibid., para 107.
[200] Ibid., para 108.
[201] Ibid., paras 108–36. The Court referred here to 108, (see, *inter alia*, to that effect, regarding Article 12 EC, *Commission* v. *Italy*, para 20; Case C-164/07, *Wood* [2008] ECR I-4143, para 13; and Case C-524/06, *Huber* [2008] ECR I-9705, para 75.
[202] The 'willingness of the Austrian legislature to take account of the interests of domestic economic operators, to the exclusion of those of economic operators established in other Member States, cannot be accepted as justification for the difference in treatment resulting from the legislation at issue in the main proceedings' (para 109). The Court also referred to Case C-120/95, *Decker* [1998] ECR I-1831, para 39; and Case C-158/96, *Kohll* [1998] ECR I-1931, para 41.
[203] *Temelín*, para 110.

throughout the territory of the Community'[204] and that the 'Health and Safety' provisions 'form a coherent whole conferring on the Commission powers of some considerable scope in order to protect the population and the environment against the risks of nuclear contamination'.[205] The Court also pointed out that both the Euratom and the Member States are parties to the Nuclear Safety Convention, which aims 'to establish and maintain effective defences in nuclear installations against potential radiological hazards'.[206]

The Court noted that the Treaty comprises a section relating to compliance with the basic standards (Articles 35 to 38 Euratom). It also noted that the Commission had carried out checks at Temelín in 2004 and 2005, pursuant to Article 35 Euratom.[207] Further, the Commission had issued an opinion on the plan for the disposal of radioactive waste in accordance with Article 37 Euratom.[208] In that opinion, the Commission had concluded that the implementation of the plan was 'not liable to result in radioactive contamination, significant from the point of view of health, of the water, soil or airspace of another Member State'. Moreover, the Commission had evaluated the safety of the Temelín plant, as well as other nuclear installations in the candidate states in the negotiations leading up to the 2004 enlargement. According to that evaluation, the Temelín plant showed a satisfactory level of nuclear safety.[209]

The Court then emphasised that the Member States have a number of remedies at their disposal 'in the event of malfunction' of the Euratom Treaty's protection system.[210] The Court mentioned Article 32, which gives each Member State the right to request that the basic standards be supplemented.[211] It also mentioned Article 38, which gives the Commission competence to make recommendations to the Member States, and 'in cases of urgency', to issue a directive requiring the Member State to take all necessary measures.[212] This provision also provides

[204] Ibid., para 124.
[205] Ibid., para 118. See also, *Land de Sarre and Others*, para 11, and *Nuclear Safety* Case, para 79.
[206] *Temelín*, paras 127–9.
[207] Ibid., para 121.
[208] Ibid., para 125.
[209] Ibid., para 130.
[210] Ibid., para 131.
[211] Ibid., para 132.
[212] Ibid., para 126.

that a Member State, which considers that another Member State has failed to fulfil an obligation under the Treaty, may bring the matter before the Court directly.[213] The Court also pointed out that the Euratom Treaty, just like the EC Treaty, contained general provisions on judicial review.[214]

The Court concluded that national legislation like the Austrian legislation 'disregards completely the fact that the Community legislative framework […] contributes precisely and essentially towards ensuring […] protection'.[215] It decided that the principle of prohibition of discrimination on grounds of nationality within the scope of application of the Euratom Treaty precluded the application of national legislation such as the Austrian rules.[216]

4.3.3 Comments on the Cases

The Court's judgment in *Temelín* was the culmination of a long-standing dispute between Austria and the Czech Republic. This had started as a bilateral matter and the issues were then discussed as a political matter on the EU level. The Commission had played an active role in trying to solve the dispute, and the two countries had managed to reach a political agreement through a joint declaration. The fact that the Czech Republic was about to accede to the EU might have eased the tensions. In addition, the Commission had instituted checks on nuclear safety in all the acceding states – beyond what was possible under the Euratom Treaty. The political agreement between Austria and the Czech Republic, however, did not satisfy some private actors. The dispute turned into a legal matter that was finally decided by the ECJ.

For Euratom, *Temelín* is an important case for a number of reasons. The ECJ strengthened the role of the Euratom[217] in that it recognised that the Euratom's system of radiation protection is relevant in cross-border situations. The Court emphasised that the Euratom Treaty's system for protection of 'Health and Safety' is sufficient, and that Member States have to respect other Member States

[213] Ibid., para 133.
[214] Ibid., para 134.
[215] Ibid., paras 135–6.
[216] Ibid., paras 139–40.
[217] Schärf, 'The Temelín-Judgement of the European Court of Justice', 79.

authorisation decisions. The case could even be seen as a tentative step towards a system of 'mutual recognition' for authorisation of nuclear installations in the Member States.[218]

The case is also important in that it tells us something about the treaty relationship. The Court mentions the 'shall not derogate' clause (Article 106a.3 Euratom), but it is unclear if this was actually decisive in the choice to apply the Euratom Treaty. Importantly, the Court holds that principles developed under the EC Treaty are also applicable to the Euratom Treaty.

The *Temelín* Case and the *MOX Plant* Case essentially concern the same substantial issue; they both concern a nuclear plant situated at the border of another State. They were also both subject of a long-standing dispute between the States involved. The acts leading up to both cases aimed to make the other State end their nuclear activities at the power plants concerned. The two cases, however, do not concern the same *legal* issue and they are not subject to the same type of legal procedure. In *MOX Plant*, which is an infringement procedure, the question was whether Ireland had breached EU law by bringing proceedings to an international Arbitral Tribunal under the UNCLOS. In *Temelín*, which was a preliminary ruling, the Court had to decide whether Austria's national legislation was in breach of EU law.

There is an important point to make here. In *Temelín*, which was decided in 2009, three years after *MOX Plant*, the Court took the opportunity to point out that the Member States had a number of remedies at their disposal in the event of malfunction of the Euratom Treaty's protection system[219]: they have the right under Article 32 Euratom to request that the basic standards be supplemented – a Member State which considers that another Member State has failed to fulfil an obligation under the Euratom Treaty may bring the matter before the Court under the normal infringement procedure and, under certain circumstances (and in case of urgency), the matter may be brought before the Court immediately

[218] Möstl, 'Case C-115/08, Land Oberösterreich v. ČEZ, Judgment of the Court of Justice (Grand Chamber) of 27 October 2008', 1221–32.
[219] Ibid., para 131.

under Article 38 Euratom.[220] The Court also pointed out that the Euratom Treaty contains provisions on judicial review concerning both the lawfulness of a measure, and in the event of failure to take a decision, in breach of the Euratom Treaty.[221] In this sense, the *Temelín* Case could be seen as an additional response to Ireland's actions in *MOX Plant*, because Ireland had in fact had the possibility to remedy the situation under the Euratom Treaty. Ireland saw the UNCLOS Tribunal as the only possible way to overcome these problems.

4.4 Application in the Field of Defence

This final section discusses a specific question: can the Euratom 'Health and Safety' provisions apply to the defence sphere? Three cases are briefly outlined and discussed below: The *French Nuclear Test* case, the *Jason* Case, and the *Gibraltar Submarine* Case. The section shows how the Court came to answer this question in the negative.

4.4.1 The French Nuclear Tests Case

As described in the initial section of this chapter, Article 34 Euratom sets out rules for 'particularly dangerous experiments'. Member States in whose territories such experiments are to take place are obliged to take 'additional health and safety measures'. They also have to obtain the Commission's opinion on these measures. Under Article 34(2), the Commission's assent is required if such experiments are 'liable to affect the territories of other Member States'. This provision is very far-reaching, for the Commission can prohibit a Member State from carrying out such experiments. Initially, Article 34 was regarded as applying to both civil and military experiments.[222]

In 1960, France asked for the Commission's opinion pursuant to Article 34 concerning its nuclear tests in the Sahara (then French Algeria). The Commission 'specified what additional precautions should be taken to ensure compliance with the Basic Standards with a view to possible repercussions on the population

[220] Ibid., para 133.
[221] Ibid., para 134.
[222] Grunwald, Das Energierecht der Europäischen Gemeinschaften, p. 223.

living near the testing site'.[223] The Commission also decided that its assent under Article 34(2) Euratom was not required. In the Commission's view, Article 34(2) did not apply because the projected experiments were 'not liable to affect the territories of other member states'.

The question of a possible application of Article 34 arose again in 1995 when France decided to carry out tests of nuclear weapons in French Polynesia.[224] France's conduct sparked fierce criticism from political leaders all over the world.[225] Did the EU have the power to stop these tests?[226] The European Parliament requested that the Commission ensure that Articles 34 and 35 Euratom were observed. With regard to Article 35, France agreed that a Commission mission would be sent to the test site for the verification of the functioning of the monitoring facilities. In its verification report, the Commission concluded that the monitoring systems inspected and the information received showed a generally satisfactory situation, but stressed that 'it had not been allowed access to certain facilities and that certain information had not been made available'.[227] It should be pointed out that the first nuclear test was carried

[223] European Commission, Third General Report on the Activities of the Community (March 1959 to April 1960), para 115.
[224] Article 198 Euratom decides the territorial scope of the Euratom Treaty (cf. Articles 52 TEU and 355 TFEU). It reads: 'Save as otherwise provided, this Treaty shall apply to the European territories of Member States and to non European territories under their jurisdiction.
It shall also apply to the European territories for whose external relations a Member State is responsible'.
[225] Between 1966 and 1991, France had used the atolls of Mururoa and Fangataufa in French Polonesia for the testing of nuclear weapon devices. France had not asked the Commission for an opinion on the nuclear tests that commenced in 1966. See Answer to written question No. 1519/95 by Nuala AHERN to the Commission. In 1974, New Zealand and Australia challenged the French nuclear tests before the ICJ (Nuclear Tests Case, New Zealand v. France, Judgment of 20 December 1974; and Australia v. France, Judgment of 20 December 1974). The case concerned the legality of atmospheric nuclear tests conducted by France in the South Pacific. The objective of New Zealand and Australia was to obtain a termination of those tests. France announced its intention to cease the conduct of atmospheric tests, and the Court then found that the objective of New Zealand and Australia had in effect been accomplished and that the claim no longer had any object. However, France continued with nuclear underground tests in South Pacific even after 1974; it had only announced that it would stop the atmospheric explosions.
[226] On this case, see Mark Wilde, 'Environmental Damage: Problems of International and EC Regulation', in Linda Johnson and Robyn M. Marti (eds.), *Law and the Public Dimension of Health* (Cavendish Publishing: London, 2001), pp. 285–7.
[227] Order of the President of the Court of First Instance of 22 December 1995 (hereinafter referred to as the '*French Nuclear Test* Case'), Case T-219/95 R, *Marie-Thérèse Danielsson, Pierre Largenteau and Edwin Haoa* v. *Commission of the European Communities* [1995] ECR II-3051, para 9.

out before any visits had taken place. During the autumn of 1995, France continued to carry out a series of nuclear tests.[228]

Unlike the tests in the Sahara in the 1960s, France did not ask the Commission for an opinion under Article 34 Euratom. In examining the possible application of Article 34, the Commission found that an experiment was regarded as 'particularly dangerous' for the purposes of Article 34 only 'if it presented a perceptible risk of significant exposure of workers or the general public to ionizing radiation'. It also found that 'an experiment involving the explosion of a nuclear device might entail such a risk and could therefore be regarded, in certain circumstances, as "particularly dangerous"'.[229] The Commission then held that the tests in French Polynesia did *not* present such a 'perceptible risk' and that 'even in the worst hypothesis, a scientific assessment showed that the basic standards would be met'.[230] In the view of the Commission, Article 34 did not apply.

This was of course a highly sensitive political issue. If the Commission had found that Article 34 applied, and if the tests had been considered 'liable to affect the territories of other Member States',[231] the Commission's assent would have been required. In light of the international political pressure to end the testing of nuclear weapons, it would have been impossible for the Commission to give such assent. Declining such assent would have been equally problematic; if France had not conformed to the Commission's decision, the EU law (i.e., Euratom law) would have lost in credibility.

However, the story did not end there. Three individuals residing in Tahiti were seeking to annul the Commission's decision on Article 34. They were also seeking to have the operation of the decision suspended for interim measures, until the Court of First Instance had given judgement on the main action (hereinafter referred to as the *French Nuclear Test* case).[232] The applicants contended that

[228] The tests took place on 5 September, 1995; 1 October, 1995; 27 October, 1995; 22 November, 1995; 27 December, 1995; and 27 January, 1996.
[229] *French Nuclear Test*, para 12.
[230] Ibid, para 13.
[231] The closest territory of another Member State was the Pitcairn Island (belongs to the UK), 800 km away. This distance was of no importance in the Commission's reasoning.
[232] *French Nuclear Test* Case.

Article 34(2) was to be applied. They argued that the nuclear tests were 'liable to affect the territory of another Member State' and that the Commission's assent therefore was required. The applicants referred to a number of scientific reports demonstrating the risks to which they considered they might be exposed. The risks included both long-term and short-term effects such as geological damage (landslides, tsunamis and tidal waves), release of radioactive materials into the sea with possible contamination of the food chain, and an increased incidence of cancer-related deaths in French Polynesia.[233]

The President of the Court of First Instance first had to consider if the applicants had *locus standi*.[234] The President noted that under Article 146 Euratom, 'any natural or legal person may […] institute proceedings against a decision addressed to that person or against a decision which, although in the form of a regulation or a decision addressed to another person, is of direct and individual concern to the former'. The President found that since the Commission decision had been addressed to the French Government and not to the applicants, it had to be determined whether the decision was none the less of direct and individual concern to them. Referring to the 'Plaumann test',[235] the President rejected the applicants' arguments that the Commission's decision affected them in a particularly serious manner and that the decision did not properly take into account the harmful consequences for their health. The President held that the Commission's decision concerned the applicants 'only in their objective capacity

[233] *French Nuclear Test* Case, paras 35–8. The applicants based their complaint on the grounds that the Commission had breached (1) Article 34 Euratom; (2) the Euratom BSS Directive; (4) customary international law; (5) human rights; and (6) Article 162 Euratom (requirement to state reasons).

[234] The applicants considered that they were individually concerned because they were particularly seriously affected by the Commission's decision; the nuclear tests could have a serious impact on their health. They further considered that they were members of the 'general public' for whose protection Article 30 Euratom provides a subjective right. They also claimed that they fell within the definition of *Antillean Rice Mills* case, which provides that 'where the Commission is, by virtue of specific provisions, under a duty to take account of the consequences of a measure which it envisages adopting for the situation of certain individuals, that fact distinguishes them individually', Joined Cases T-480/93 and T-483/93, *Antillean Rice Mills and Others* v. *Commission* [1995] ECR II-2305, para 67.

[235] As had been clarified in the Court's case law, starting with the *Plaumann* case, 'persons other than those to whom a decision is addressed may claim to be individually concerned by that decision only if it affects them by reason of certain attributes which are peculiar to them or by reason of circumstances in which they are differentiated from all other persons and if by virtue of those factors it distinguishes them individually just as in the case of the person addressed'. See Case 25/62, *Plaumann* v. *Commission* [1963] ECR 95.

as residents of Tahiti, in the same way as any other person residing in Polynesia'.[236] The fact that the applicants might suffer personal damage was not sufficient to distinguish them individually; the applicants had not adduced any evidence to prove that the Commission's decision would affect them due to certain attributes or circumstances that were peculiar to them.

The President also rejected the applicants' argument that the Commission had, by virtue of certain specific provisions of the Treaty, a duty to take account of the consequences for their situation.[237] The President pointed out that an analysis of the Euratom's 'Health and Safety' provisions showed that the Commission is under an obligation to assess the effects of the nuclear tests on all members of the general public and workers concerned:

> Interpreted within the scheme of Chapter 3, in particular in relation to Article 30, which concerns specifically 'the protection of the health of workers and the general public', Article 34 requires the Commission to make its assessment of whether the experiments which a Member State intends to carry out are dangerous within the context of the general objective of protecting the health of workers and the general public as a whole, by means of general preventive action based on considerations of public interest. When it takes such action, the Commission cannot be required to take into consideration the particular situation of each individual resident and worker within the geographical area concerned by a given experiment unless there are specific grounds for taking such considerations into account in the light of the objectives envisaged.[238]

The President concluded that the applicants could not be regarded as being prima facie individually concerned by the decision.[239] Consequently, the applicants lacked *locus standi*; they could not challenge the Commission's actions.[240] And as a result, the Court did not have to decide on the application of Article 34.

This episode shows that the Euratom Treaty was toothless when it came to nuclear tests conducted by a Member State because of the absence of real judicial review possibilities. If there had been such a possibility, the Court would have

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[236] *French Nuclear Test* Case, para 70.
[237] Ibid., 73.
[238] Ibid.,74.
[239] For a similar reasoning, see Case T-585/93, *Greenpeace International and Others* v. *Commission* [1995] ECR II-2205.
[240] The President thus dismissed the application for interim measures. See, *French Nuclear Test* Case, paras 58–78.

had to decide on a highly sensitive political issue. We cannot therefore exclude the possibility that the Court formulated the problem of *locus standi* to avoid a decision on Article 34.[241] The final solution, however, turned out to be political rather than legal: France faced strong international pressure to end its nuclear testing. In January 1996, France declared that it had conducted its last test.

4.4.2 The Jason Case

The question on the applicability of the 'Health and Safety' provisions to nuclear activities of a military nature was never examined in the *French Nuclear Test* case.[242] Just a few years later, however, the Court had the possibility to decide on this question. The *Jason* Case[243] concerned the so-called Jason reactor, which was operated by the UK Ministry of Defence from 1962 to 1996. The reactor was used to train personnel and as a research tool in the UK's nuclear propulsion programme for nuclear submarines of the Royal Navy. In 1998, the UK informed the European Commission that the Jason reactor was to be decommissioned. The Commission requested that the UK send more detailed information so that it could determine whether 'general data' required under Article 37 Euratom should be provided. As explained, under Article 37, each Member State shall provide the Commission with general data relating to any plan for the disposal of radioactive waste. The data has to be such that the Commission can determine whether the implementation of such a plan is 'liable to result in the radioactive contamination of the water, soil or airspace of another Member State', i.e., whether it has transboundary effects. The UK replied that it would not be

[241] All EU Member States have now ratified the Comprehensive Nuclear Test Ban Treaty. France signed the Comprehensive Nuclear Test Ban Treaty in September 1996, and ratified it in April 1998. This might be more efficient than supranational rules in this field. See J. G Lammers, *Pollution of International Watercourses: Search For Substantive Rules and Principles of Law* (Martinus Nijhoff Publishers: The Hague, 1984), p. 90.

[242] The Court never had the chance to rule on the merits of the contested Commission decision. In *French Nuclear Test*, para 62, the President of the Court explains: 'It is not appropriate to rule in advance, in the present interim proceedings, on the question whether, in accordance with the Commission's interpretation, which was challenged by the French Government at the hearing, Chapter 3 of the Treaty, concerning health and safety measures, and Article 34 in particular, is applicable to nuclear activities of a military nature. Consideration of that question belongs to the examination of the merits of the contested act'.

[243] Case C-61/03, *Commission* v. *United Kingdom* ('*Jason* Case') [2005] ECR I-2477.

providing any further details and explained that as the Jason facility was used for military purposes, it did not fall within the scope of the Euratom Treaty.

The Commission brought an action to the ECJ,[244] claiming that the Court should declare that the UK had failed to fulfil its obligations under Article 37 Euratom. In the view of the Commission, Article 37 applied to both civil and military activities; the protection extended to all sources of danger.[245] In the view of the UK (and France, which intervened in support of the UK in the proceeding), Article 37 could not apply to military installations because the Euratom Treaty only covered civil uses of nuclear energy.[246] The UK relied on the definition of the Euratom's tasks and duties in Article 1 and 2 and contended that 'the health and safety responsibilities of the Community are part and parcel of its responsibilities in the development of the *civil and commercial uses* of nuclear energy'.[247] The UK also argued that if the Euratom Treaty had been intended to cover defence activities, it would have contained detailed exceptions.[248] The only exception is Article 84(3), which provides that the Euratom safeguards may not extend to materials intended to meet defence requirements. In the UK's view, this provision did not imply that the Euratom Treaty applies to defence activities unless excluded. The UK further pointed to the absence of a provision analogous to Article 296 EC (now Article 346 TFEU), which provides that no Member State shall be obliged to supply information the disclosure of which it considers contrary to the essential interests of its security.[249] According to the UK, the

[244] In 2001, the Commission sent a letter of formal notice to the UK, and later, a reasoned opinion. The Commission held that the UK had failed to fulfil its obligations under Article 37 Euratom; the UK had not provided the Commission with general data relating to a plan for the disposal of radioactive waste from the decommissioning of the Jason reactor. The UK replied that in its view, Article 37 Euratom is not applicable to military installations and that it had no obligation to provide the Commission with such data.
[245] *Jason* Case, para 22. The Commission pointed out that France had in the past recognised that the Euratom's 'Health and Safety' provisions applied to risks of military origin. In 1957, the French foreign minister had declared to the French Assemblée Nationale that, 'the provisions of Article 34 apply to all particularly dangerous experiments, civil or military'. See Case C-61/03, *Commission* v. *United Kingdom* [2005] ECR I-2477, Opinion of AG Geelhoed, para 43.
[246] *Jason* Case, para 23.
[247] Opinion of AG Geelhoed, para 49. Emphasis added.
[248] Ibid., para 50.
[249] Ibid., para 51.

absence of such a provision confirmed that the Euratom Treaty was never intended to apply to uses of nuclear power for defence purposes.[250]

4.4.2.1 The Analysis of the Advocate General

Advocate General Geelhoed found that on a textual interpretation, it was plain that Article 37 applied to both civil and military sites. In contrast to other Euratom provisions (i.e., the exceptions in Articles 24 and 84), the 'Health and Safety' provisions did not provide an exception on the grounds of protection of Member States' military interests.[251] The AG also pointed out that at the time of the conclusion of the Treaty, the potential application to nuclear military activities had been an issue of certain political sensitivity[252]; France was about to develop nuclear weapons.[253] The AG observed that the travaux préparatoires had aimed for balancing divergent interests:

> The general view of the Ministers was that it was more important to find a solution that did not definitely exclude military uses, while at the same time ensuring that such a solution could not endanger the safeguards that were recognised as being of primordial importance.[254]

The AG then pointed out that a number of treaty articles deal explicitly with military nuclear activities. In the view of the AG, those articles demonstrate the treaty authors' concern to provide for and respect the sensitive nature of information in this area.[255] Moreover, they represent a balance between the treaty's objectives and a Member State's interest to ensure confidentiality in the defence sector.[256] The AG referred to Articles 24 to 28 Euratom, which 'provide for a special security system applicable to information acquired by the

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[250] The UK contended that 'Article 296 EC forms a vital safeguard for Member State's security interests' and that the absence of such a provision constitutes 'an irremediable "lacuna" militating against the application of this Treaty to the defence sector'.
[251] Opinion of AG Geelhoed, para 62. The AG then pointed out that the objectives underpinning that chapter had 'consistently been viewed as being of the utmost importance'. Ibid., paras 64–77.
[252] Ibid., paras 78–88.
[253] Since none of the Euratom Member States had nuclear military activities at the time of conclusion of the Treaty (only United States, the UK and the Soviet Union had nuclear military activities at that time), it had 'not been necessary to decide whether the Treaty applied to the nuclear defence sector'. Ibid., para 79.
[254] Ibid., para 81.
[255] Ibid., para 83.
[256] Ibid., para 88.

Community as a result of carrying out its nuclear research programme if the disclosure of such information is liable to harm the defence interests of one or more Member States'.[257] The AG also referred to Article 84(3), which provides for an exception from the Euratom safeguards system,[258] and Article 194 Euratom, which provides for a 'duty of secrecy incumbent on anyone obtaining access to sensitive nuclear information classified under the security system of a Member State or of an [Euratom] institution'.[259] The AG also mentioned Article 13, which states that the Commission may not disclose information that has been acquired subject to restrictions on its use.[260]

The AG made an analogy with Article 296 EC (Article 346 TFEU),[261] which provides that no Member State shall be obliged to disclose information it considers contrary to the 'essential interests of its security'. It read:

1. The provisions of this Treaty [the EC Treaty] shall not preclude the application of the following rules:

(a) no Member State shall be obliged to supply information the disclosure of which it considers contrary to the essential interests of its security;

(b) any Member State may take such measures as it considers necessary for the protection of the essential interests of its security which are connected with the production of or trade in arms, munitions and war material; such measures shall not adversely affect the conditions of competition in the common market regarding products which are not intended for specifically military purposes.

The AG explained that the existence of this provision did not imply that the EC Treaty as a whole had no application to the defence sphere: 'Rather, the article applies only in those particular cases where a Member State considers that its "essential interests of security" would be harmed if it were obliged to supply a

[257] Ibid., para 84.
[258] The AG pointed out that this provision only applies to certain kinds of defence-related materials (only those that are 'in the course of being specially processed for [defence purposes] or which, after being so processed are, in accordance with an operational plan, placed or stored in a military establishment'), and that 'Chapter 7 'Safeguards' would seem to apply to those defence-related materials not covered by Article 84(3)'. Ibid., para 85.
[259] Ibid., para 86.
[260] Ibid., para 87.
[261] Ibid., paras 100–7.

certain piece of information'.[262] The AG rejected the argument put forward by the UK that the absence of an analogous provision to Article 296 EC constitutes a 'lacuna' in the Euratom Treaty and that this would mean that the Treaty is not intended to apply to defence uses.[263] He explained that that argument was based on an incorrect assessment of the relationship between the Euratom Treaty and the EC Treaty:

> This relationship is such that, insofar as matters are the subject of provisions in the [Euratom] Treaty or rules adopted pursuant thereto, the EC Treaty has no application […] Importantly, however, insofar as matters are not provided for in the [Euratom] Treaty or implementing legislation, the EC Treaty may apply […] It follows, in my estimation, that the relationship between the [Euratom] and EC Treaties belies the existence of any 'lacuna' stemming from the absence in the [Euratom] Treaty of an analogous provision to Article 296 EC. Rather, insofar as the [Euratom] Treaty and implementing legislation do not explicitly provide for equivalent safeguards for Member State's essential security interests, the safeguards contained in Article 296 EC may equally apply to products covered by the [Euratom] Treaty.[264]

The AG thus put forward a gap-filling argument: Article 296 EC may apply to products covered by the Euratom Treaty. As Article 296 EC protects national interests, the procedure in Article 37 Euratom could also apply to the defence sector. The AG explains that 'such a solution avoids the inevitable negative repercussions of an "all or nothing" approach in which one interest – whether public health or national defence – trumps the other in all circumstances'.[265] The obligation under Article 37 to provide the Commission with general data 'should, in principle, apply equally to the defence sector', and it should not be acceptable for a Member State to refuse to supply any such data 'on the sole ground that the waste results from defence activities'.[266]

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[262] Ibid., para 101. The AG then explains: '[I]t is not the case that [the environmental provisions have], in principle, no application to environmental issues arising in the defence sector. Rather […] the presumption is that measures taken in furtherance of environmental objectives apply equally within the military sphere unless this would be contrary to essential security interests [...] in which case an exception for the defence sector must be explicitly provided for in the relevant legislation. This is similarly the case for legislation enacted under Title XI on Social Policy or on Public Health'. Ibid., para 102.
[263] Ibid., para 103.
[264] Ibid., paras 104–7.
[265] Ibid., para 110.
[266] Ibid., para 112.

The AG then argued that 'it is plain' that the application of the Euratom Treaty must respect Member State's essential security interests: the 'Article 37 obligation should not, therefore, apply where, in a particular case, a Member State considers that its essential security interests may be harmed by supplying certain information required under this article'.[267] The AG pointed out that the Member States are bound by the duty of loyal cooperation enshrined in Article 192 Euratom, which, according to the AG, requires Member States to engage in an 'open' and 'constructive' dialogue with the Commission, and to discuss 'whether protection of its defence interests could be achieved by less extreme means than total withholding of the information'.[268] This solution would equal a 'dialogue-based, case-by-case approach'[269] and it would avoid the risks that a 'blanket application of Article 37 [Euratom] to the defence sector could pose'.[270] The AG adds that the balance is 'analogous to that espoused by the EC Treaty, from which the defence sector is not per se excluded, yet under which Member States are not obliged to provide information if this would prejudice essential interests of national security'.[271]

The AG concluded that the Court should declare that the UK was in breach of its obligations under Article 37 Euratom, because it has failed to provide the Commission general data resulting from the decommissioning of the Jason reactor insofar as is compatible with the essential interests of its national security. In addition, it had failed to 'enter into a dialogue with the Commission as to whether protection of its defence interests could be achieved by less extreme means than total withholding of the information from the Commission'.[272] As shall be explained, the Court came to a different conclusion.

[267] Ibid., para 113.
[268] Ibid., para 115.
[269] Ibid., para 116.
[270] Ibid., para 117.
[271] Ibid., para 118.
[272] Ibid., para 120.

4.4.2.2 The Judgement of the European Court of Justice

The Court first considered the Commission's argument that there is no provision that expressly *excludes* military activities in general from the Treaty's scope.[273] It noted that the Treaty preamble refers to the advancement of the cause of peace, the application of the nuclear industry contributing to the prosperity of their peoples and the peaceful development of nuclear energy.[274] It also noted that Articles 1 and 2, which define Euratom's mission and task, confirm that the objectives are essentially civil and commercial.[275] The Court stated that it was clear from the Treaty's historical background and certain unilateral declarations mentioned in the travaux préparatoires that the Treaty's application to military uses of nuclear energy had been discussed during the negotiations. The negotiators had held different opinions on the issue and they had decided to leave it unresolved.[276]

The Court then examined the UK and France's main objection that the Treaty does not contain any provisions specifically intended to safeguard the Member States' national defence interests. The Commission had argued, to the contrary, that the Treaty indeed contains provisions that show that the Member States' defence interests were taken into consideration: the aforementioned security provisions Articles 24 to 28, and Article 84(3).[277] The Court emphasised that those provisions are 'limited in scope'[278] and that their existence might be explained by the fact that the application of certain treaty rules is liable to have an impact on activities and interests within the field of the national defence of the Member States.

The Court held that several Euratom Treaty provisions confer on the Commission substantial powers that enable it to intervene actively, by means of

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[273] *Jason* Case, para 25.
[274] Ibid., para 26.
[275] Ibid., para 27–8.
[276] Ibid., para 29. See also Opinion of AG Geelhoed, paras 80 and 81.
[277] *Jason* Case, para 31. The Commission referred to Articles 24–27 Euratom, which concern the dissemination of certain types of information that if disclosed is liable to harm Member States' defence interests; Article 28 Euratom, which provides that the Euratom shall make good the damage suffered by parties where, as a result of their communication to the Commission, patents or utility models classified for defence reasons, are improperly used or come to the knowledge of an unauthorised person; and Article 84(3) which provides that the Euratom safeguards may not extend to materials intended to meet defence requirements.
[278] Ibid., paras 32 and 33.

legislation or in the form of an opinion containing individual decisions, in various spheres of activity.[279] The Court pointed out that those provisions do not specify whether the activities governed are exclusively civil,[280] but that the application of such provisions to military installations, research programmes and other activities might be such as to compromise Member States' essential national defence interests.[281] The Court held:

> [T]he absence in the Treaty of any derogation laying down the detailed rules according to which the Member States would be authorised to rely on and protect those essential interests leads to the conclusion that activities falling within the military sphere are outside the scope of that Treaty.[282]

The Court thus ignored the AG gap-filling argument that Art 296 EC could be applied. The Court noted that the Commission had maintained at the hearing that the Member States were not obliged under Article 37 Euratom to provide any information relating to their military activities. The Commission had argued that the communicated data would only concern the equipment or installations that are no longer assigned to military use, and that are classified as 'waste'. The Court argued that according to that interpretation of Article 37, each Member State would have to decide for themselves not only the time from which a military source of radioactive waste must be regarded as waste, but also on the content of the data communicated.[283] Consequently, any late or partial communication of the data would render nugatory the objective or make it impossible to deliver an opinion with full knowledge of the facts.[284] It would also be a source of dispute and undermine the effective application of that provision.[285] The Court concluded that Article 37 Euratom does not impose on the UK the obligation to provide the Commission with general data relating to

[279] The Court referred to Articles 34, 35 and 37, and the provisions on 'Promotion of Research', Articles 4–11 Euratom.
[280] Ibid., para 35.
[281] Ibid., para 36.
[282] Ibid., para 36.
[283] Ibid., para 37.
[284] Ibid., para 40.
[285] Ibid., para 41.

the plan for the disposal of radioactive waste associated with the decommissioning of the Jason reactor.[286]

The Court emphasised that the fact the Euratom Treaty is not applicable to uses of nuclear energy for military purposes does not reduce the importance of the objective of protecting the health of the public and the environment against the dangers related to the use of nuclear energy, including for military purposes. This objective would, however, have to be met by other means:

> In so far as that Treaty does not provide the Community with a specific instrument in order to pursue that objective, it is possible that appropriate measures may be adopted on the basis of the relevant provisions of the EC Treaty.[287]

Thus, the Court ruled that the Euratom Treaty does not apply to military uses of nuclear energy, but that the EC Treaty could be applied for such uses instead. In order to support its reasoning, the Court referred to Case C-62/88 *Greece* v. *Council* (which concerned the EC Regulation on Import of Agricultural Products),[288] where it had held that recourse to Article 113 EEC (common commercial policy) could not be excluded on the ground that the Euratom provisions on 'Health and Safety' lay down specific rules governing the basic standards for protection of the health of the general public against the dangers from ionizing radiation; those provisions were not intended to regulate trade between the Community and non-member countries.

4.4.2.3 Comments on the Case

The Court and the AG both refer to case law, which state that the EC Treaty may apply to the 'Euratom field' if the Euratom Treaty is silent (the AG referred to *Opinion 1/94* and the Court to Case C-62/88 *Greece* v. *Council*). Yet, they come to different conclusions. The AG concluded that Article 37 Euratom applies to nuclear energy for military purposes, because Article 296 EC can apply to Euratom products and thereby safeguard national defence interests. A balance between national defence and health protection would be achieved through the

[286] Ibid., para 45.
[287] Ibid., para 44.
[288] Case C-62/88, *Greece* v. *Council* [1990] ECR I-1527.

duty of cooperation, where the Member States would be under a duty to engage in an open dialogue with the Commission on what information to communicate.[289] The Court ignores this argument and holds that the absence of a general derogation like Article 296 EC must mean that military activities are excluded from the scope of the Euratom Treaty. Consequently, Article 37 Euratom does not apply to military activities.

The Court seems to suggest that the Treaties are to be seen as autonomous, but that the Euratom's objective of protecting the health of the public and the environment for the use of nuclear energy for military purposes can be adopted on the basis of the 'relevant provisions of the EC Treaty'. But what are these 'relevant provisions'? In other words, under what legal basis in the TFEU would such legislation be adopted? The environmental legal bases seem to be closest at hand (Articles 191 and 192 TFEU). Adopting 'appropriate measures' on the basis of the TFEU creates, however, an odd asymmetry. For military sources of radiation, the EU will have to adopt secondary legislation, but for civil sources, the procedure is found directly in primary law (Article 37 Euratom). As a consequence, while it is the EU institutions that decide on protection from military sources, it is ultimately the Member States that decide on protection from civil sources (under the procedure in Article 48 TEU). One might think that some Member States would have preferred it to be the other way around.

The Court does not refer to the 'shall not derogate clause' in Article 305(2) EC (now Article 106a.3 Euratom), which states that the provisions of the EC Treaty shall not derogate from those of the Euratom Treaty. But the Court's reasoning does not really conflict with the clause. The argument is that the absence of a safeguarding provision equivalent to Article 296 EC removes the whole field of military applications from the scope of the Euratom Treaty. The AG's suggestion would not conflict with the clause either. In the AG's view, Article 296 EC would be applied to protect Member States' security interests, but this does not imply that there is a derogation of the Euratom provisions.

[289] Note how this principle – which actually has its roots in the Euratom Treaty (Ruling 1/78), but which has evolved in the context of the EC Treaty (EU Treaties) –was now suggested to apply to the Euratom Treaty, but in this 'evolved shape'.

This case not only limits the scope of the Euratom Treaty, but also renders the Treaty nugatory. If radiation protection legislation concerning *military* sources will be adopted on the basis of the TFEU, one might question why we even need the Euratom. In other words, this suggests that there is nothing special about nuclear energy *per se* that makes the Euratom Treaty necessary.

4.4.3 The Gibraltar Submarine Case

A few words should be said about the *Gibraltar Submarine* Case,[290] for this case also raised the question of application to military sites. The facts are the following. In the year 2000, the Commission received complaints relating to repair work that was carried out in Gibraltar harbour to a nuclear-powered submarine following an incident with its nuclear device. The Commission asked the UK to forward to it the information given to the public pursuant to Article 5(3) of Council Directive 89/618/Euratom on informing the general public about health protection measures to be applied and steps to be taken in the event of a radiological emergency.[291] The UK replied that the Euratom Treaty did not apply to the use of nuclear energy for military purposes, but that there nevertheless was an intervention plan for Gibraltar, available in the Gibraltar public library. The Commission sent the UK a letter of formal notice stating that merely making the information available in a public library could not be considered to be a satisfactory implementation of the Directive.[292] The UK replied that the activities relating to military nuclear propulsion systems fall outside the tasks assigned to the Euratom. The Commission then brought an action to the Court.

The Court stated that it had already in the *Jason* case decided on the question of whether military uses of nuclear energy fall within the scope of the Euratom Treaty. The Commission acknowledged that both cases concerned the same

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[290] Case C-65/04, *Commission* v. *United Kingdom* ('*Gibraltar Submarine* Case') [2006] ECR I-2239.
[291] Council Directive 89/618/Euratom of 27 November 1989 on informing the general public about health protection measures to be applied and steps to be taken in the event of a radiological emergency, OJ 1989 No. L357, 7 December 1989, p. 31.
[292] Article 5.1 of the Directive provides that 'Member States shall ensure that the population likely to be affected in the event of a radiological emergency is given information about the health protection measures applicable to it and about the action it should take in the event of such an emergency', and Article 5.3 of the Directive provides that 'this information shall be communicated to the population referred to in paragraph 1 without any request being made'.

point of law, but that the information in the *Gibraltar submarine* case, which Member States were required to give to the public, simply covered general health protection measures to be taken by the public in the event of a radiological emergency. This was a civil defence matter and not a military matter, and applying the Directive would therefore not likely harm military interests.[293] The Court dismissed that argument.[294] It held:

> [I]t is very clear from [the *Jason* case] that the use of nuclear energy for military purposes falls outside the scope of all the provisions of the [Euratom] Treaty, not just some of them […] As the scope of provisions of secondary legislation cannot validly exceed that of their legal basis, the inapplicability of Article 31 [Euratom] to military activities necessarily means that the directive does not apply to such activities.[295]

The Court concluded that in the case of the repair of a nuclear-powered submarine, the Directive does not require the UK to inform the public about health protection measures.[296] The Court reiterated the Court's reasoning in the *Jason* case that this finding 'does not by any means reduce the vital importance of the objective of protecting the health of the public and the environment against the dangers related to the use of nuclear energy, including for military purposes'. It also reiterated the possibility to adopt 'appropriate measures on the basis of the relevant provisions of the EC Treaty'.[297]

To conclude, in the *Jason* Case and the *Gibraltar Submarine* Case, the Court decided that the Euratom's 'Health and Safety' provisions do not apply to military uses of nuclear power. The Court held that TFEU legal bases may be used to adopt legislation to protect the health of the public and the environment from radiation from such military sources. As already mentioned, this could mean that the Euratom is no longer needed. Why do we need the Euratom if radiation protection legislation could be adopted on the basis of the TFEU? The judgements have also removed some uncomfortable tasks from the remit of the Euratom. As we saw in the *French Nuclear Test* case, applying the 'Health and Safety' provisions (and Article 34 Euratom in particular), can involve politically

[293] *Gibraltar Submarine* Case', para 21.
[294] Ibid., para 24.
[295] Ibid., paras 26 and 27.
[296] Ibid., paras 29–30.
[297] Ibid., para 28 and the *Jason* Case, para 44.

sensitive issues. Following the *Jason* Case, the Court does not have to make such decisions. But perhaps law could not have appropriately solved these kinds of issues anyway.

4.5 Conclusions

This chapter has explored the relationship between the 'Health and Safety' provisions and other policy areas within the competence of the EU. The discussion shows that the TFEU provides alternative legal bases in the area of environmental policy, public health, and protection of workers. These are areas that have made it into the EU Treaties through expansion of competences. In the relationship between the original EEC and the Euratom, there were no such overlaps. One consequence of this expansion is that it appears that the Euratom Treaty is no longer needed. In the *Jason* Case, the Court decided that the Euratom Treaty does not apply to the military sphere, but that the EC Treaty (now, the TFEU) could be applied instead. This finding does not only limit the scope of the Euratom Treaty, but it also makes the Euratom redundant.

Nevertheless, the Euratom provides some added value. The 'Health and Safety' provisions appear more 'robust' than the TFEU provisions discussed in this chapter: they specify what the legislator should do. For example, Article 30 Euratom stipulates that 'basic standards' shall be adopted. Such specific formulations can be seen as 'imperatives' to adopt secondary legislation and this might facilitate decision-making. The TFEU provisions are more generally framed (cf. Article 191 and 191 TFEU). They are of course also more flexible, but this means that they give more room for lengthy discussions and disagreements about if and how they can be applied. Perhaps the political sensitivity of the issues involved in any decision on nuclear energy requires the 'robustness' that the Euratom provides.

The most obvious consequence of applying the EU Treaties instead of the Euratom Treaty concerns the legislative procedure and, primarily, the role of the European Parliament. Using TFEU legal bases means involving the European Parliament; the ordinary legislative procedure applies for all the policy areas

discussed. By contrast, under the Euratom provisions, the Parliament has, at best, a consultative role. Another consequence has to do with the nature of competence. The Euratom's 'Health and Safety' provisions provide for an exclusive competence, whereas the TFEU legal bases examined in this chapter at best provide for a shared competence (except for the provisions on the common commercial policy, where the competence is exclusive).

One important purpose of this chapter was to examine possible ways to deal with gaps and overlaps between the Treaties, and we have identified some policy areas where such overlaps occur. As the Euratom Treaty already aims to 'create the conditions of safety necessary to eliminate hazards to the life and health of the public', there appears to be no obstacle to applying environmental legislation to the nuclear sector. The same goes for the other identified policy areas. The reason being, as I see it, that the 'health and safety' provisions and the policy areas discussed all share the same objective: the protection of human health.

Chapter 5: Nuclear Safety

This chapter discusses the evolution of Euratom's most significant activity area: 'nuclear safety'. It deals with negative externalities from the (civil) use of nuclear energy, just like the preceding chapter on 'radiation protection'. But while 'radiation protection' focuses on effects of radioactivity on human health, 'nuclear safety' focuses on technical aspects of installations. The chapter uses a broad definition of nuclear safety, and also includes emergency measures (and we shall see that there are many overlaps here with Chapter 3, 'Radiation Protection') and nuclear liability.

For a long time, it was believed that there was no legal basis for nuclear safety. This chapter describes the broadening of Euratom competence to legislate in this policy area. This development and its implications, is our focus. Here, we are less concerned with the relationship between the Euratom and EU than with what the Euratom is or is not. How does the Euratom provide added value? What should we make of the fact that nuclear safety is now the Euratom's most significant policy area (in terms of the fact that most activities are taking place in this field), despite the fact that this is not accurately reflected in the Treaty objectives? Could we say that nuclear safety has provided the Euratom with a new rationale?

The chapter first provides an introduction to the international nuclear safety regime, which was developed as a response to the Chernobyl accident in 1986 – the defining moment for nuclear safety law worldwide. This account sets the stage for the issues explored in the following discussion. The discussion is divided into two parts. The first part discusses competence issues. It explores the Euratom's difficulties in concluding the international conventions, as well as Case C-29/99 ('the *Nuclear Safety* Case),[1] in which the Court broadened Euratom competence on nuclear safety. The second part of the discussion focuses on substantive instruments. It takes an evolutionary approach. It describes how Euratom adopted the legislation in three phases. Each phase represents a response to major events: the Chernobyl accident, the fall of the Soviet Union,

[1] Case C-29/99, *Commission* v. *Council* [2002] ECR I-11221.

and the enlargement of the EU. The final section deals with nuclear liability. There are no Euratom rules yet on nuclear liability. We shall consider some challenges in adopting such rules.

5.1 The International Response to the Chernobyl Accident

It is frequently argued that nuclear law is characterised by a high degree of internationalisation.[2] Indeed, the sheer number of international instruments adopted in the last few decades indicates that nuclear law is increasingly becoming a global enterprise. One obvious reason for this internationalisation is the realisation that nuclear accidents can have a widespread transboundary impact. The Chernobyl accident illustrated just how serious that impact could be.

Four conventions were adopted in the wake of the accident, all under the aegis of the IAEA: the Convention on Early Notification of a Nuclear Accident; the Convention on Assistance in the case of a Nuclear Accident or Radiological Emergency; the Convention on Nuclear Safety; and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management. These conventions form the so-called 'nuclear safety family'.[3] This section provides a brief overview over these Conventions in order to set the stage for the following discussion.

5.1.1 The Early Notification Convention and the Assistance Convention

The Convention on Early Notification of a Nuclear Accident ('the Early Notification Convention') and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency ('the Assistance Convention) were both adopted in 1986, just months after the Chernobyl accident.[4] They were

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[2] See, for example, Norbert Pelzer, 'Learning the Hard Way: Did the Lessons Taught by the Chernobyl Accident Contribute to Improving Nuclear Law?' in *International Nuclear Law in the Post-Chernobyl Period* (joint report by the OECD Nuclear Energy Agency and the IAEA, 2006), pp. 73–118 at 83.

[3] The IAEA has also supplemented the Conventions by two non-legally binding codes: The Code of Conduct on the Safety and Security of Radioactive Sources (IAEA/CODEOC/2004) and the Code of Conduct on the Safety of Research Reactors (IAEA/CODEOC/RR/2006).

[4] Convention on Early Notification of a Nuclear Accident, Vienna, 26 September 1986, in force 27 October 1986, INFCIRC/335, IAEA; and Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, Vienna, 26 September 1986, in force 26 February 1987, INFCIRC/336, IAEA. The Early Notification Convention has 110 parties and the Assistance

negotiated simultaneously and agreed upon in an exceptionally short period of time.[5]

The Chernobyl accident resulted in widespread radiological contamination. Many European countries were affected, but emergency measures were not taken because the Soviet Union did not provide adequate information.[6] The 'Early Notification Convention' was adopted to ensure that information on nuclear accidents is communicated as early as possible. It applies in the event of an accident 'from which a release of radioactive material occurs, or is likely to occur, and which has resulted or may result in an international transboundary release that could be of radiological safety significance for another State'.[7] It gives the IAEA a coordinating role. The State Parties are obliged to inform the IAEA as well as States that are or may be affected. The Convention includes provisions on what type of information must be provided and on the designation of competent authorities and points of contacts.

Some commentators have criticised the Convention for giving too much discretion to the Accident State.[8] It is the Accident State that decides whether the release is 'transboundary' and can have 'safety significance for another state'. In short, it is the Accident State that decides whether the Convention shall apply. Therefore, the Convention might not have made a difference had it been in force

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Convention 105 parties. The Euratom is a party to both Conventions. The following international organisations also parties: The Food and Agriculture Organization (FAO), the World Health Organization (WHO), and the World Meteorological Organization (WMO). For an overview over the two Conventions, see Berthold Moser, 'The IAEA Conventions on Early Notification of a Nuclear Accident and on Assistance in the Case of a Nuclear Accident or Radiological Emergency' (1989) 44 *Nuclear Law Bulletin* 10–23; and Pelzer, 'Learning the Hard Way', pp. 78–83; and Andrea Gioia, 'Nuclear Accidents and International Law', in Andrea de Guttry, Marco Gestri, Gabriella Venturini (eds.), *International Disaster Response Law* (The Hague: T.M.C. Asser Press, 2012), pp. 85–104.

[5] Jankowitsch-Prevor explains that the adoption of the two Conventions was a matter of codification of already existing non-binding instruments, in particular the IAEA's 'Guidelines for Mutual Emergency Assistance Arrangements in Connection with a Nuclear Accident or Radiological Emergency'. The draft was also based on an agreement between the Scandinavian countries and the IAEA (The Nordic Mutual Emergency Assistance Agreement in Connection with Radioactive Accidents of 17 November 1963). See Odette Jankowitsch-Prevor, 'The Normative Role of the International Atomic Energy Agency, Legal Basis and Legal Sources', in *International Nuclear Law: History, Evolution and Outlook* (Nuclear Energy Agency, 2010), pp. 13–30.

[6] Pelzer argues that the Soviet Union was under an obligation under customary international law to inform neighbouring states. See Pelzer, 'Learning the Hard Way', p. 79.

[7] Article 1 of the Early Notification Convention.

[8] See Pelzer, 'Learning the Hard Way', p. 80.

at the time of the Chernobyl accident; the Soviet Union asserted that there was no release of radioactive material that could affect other States.

The 'Assistance Convention' was adopted in order to facilitate assistance in the event of a nuclear accident. It requires State Parties to cooperate with each other and with the IAEA.[9] It contains provisions on responsibility for direction and control; designation of competent authorities and points of contact; functions of the IAEA; reimbursement of costs; immunities and facilities granted to persons providing assistance; measures to facilitate transit of personnel, equipment and property; exemptions from civil liability of the party providing the assistance; and termination of assistance. States have to inform the IAEA of equipment and experts that can be used for assistance. Each State decides what assistance it can provide. Additionally, this Convention gives the IAEA a coordinating role.

It was more difficult for the negotiating parties to agree on the Assistance Convention than on the Early Notification Convention. Pelzer explains that 'assistance' involves more politically sensitive issues on State sovereignty, immunities and privileges, liability, and finance.[10] Similar difficulties can be observed within the EU. While an instrument for the exchange of information was adopted already in 1987, a specific assistance mechanism that can be activated in the event of a nuclear accident or radiological emergency was not agreed until 2001.

5.1.2 The Nuclear Safety Convention and the Joint Convention

The Nuclear Safety Convention was adopted in 1994.[11] It aims to achieve and maintain 'a high level of nuclear safety worldwide through the enhancement of national measures and international co-operation'.[12] The Convention is based on

[9] Article 1 of the Assistance Convention.
[10] Pelzer, 'Learning the Hard Way', p. 80.
[11] Convention on Nuclear Safety [hereinafter 'Nuclear Safety Convention'], Vienna, 17 June 1994, in force 24 October 1996, 1963 UNTS 293; S. Treaty Doc. No. 104-6 (1995); 33 ILM 1514 (1994), INFCIRC/449, IAEA.
[12] Article 1 of the Nuclear Safety Convention states that it aims at achieving and maintaining a high level of nuclear safety worldwide through the enhancement of national measures and international co-operation including, where appropriate, safety-related technical co-operation; to establish and maintain effective defences in nuclear installations against potential radiological hazards in order to protect individuals, society and the environment from harmful effects of

the principles in the non-binding 'IAEA Safety Fundamentals'.[13] It includes provisions on siting, design and construction, operation, availability of adequate financial and human resources, assessment and verification, and emergency preparedness. It stipulates that the responsibility for nuclear safety rests with the State.[14]

The Convention does not contain any detailed technical obligations on nuclear installations – it is merely of a 'framework character'. This is made explicit in the Convention's preamble: 'this Convention entails a commitment to the application of fundamental safety principles for nuclear installations rather than of detailed safety standards'.[15] Detailed rules are instead found in the IAEA's non-mandatory guidelines, which the Convention directly refers to; it brings 'soft law' into the picture. As the preamble makes explicit, this construction allows for technical flexibility, because 'soft' guidelines can be more easily updated than a legally binding convention.

Compliance is achieved by the means of a peer review mechanism, by 'incentives'.[16] Review conferences are held every three years to consider the implementation of the Convention. Contracting parties are required to submit a report for review on the measures taken to implement the obligations.[17] Other contracting parties shall then evaluate the measures taken. The idea is that the pressure from their peers shall incentivise States to implement improvements recommended by other contracting parties and by the IAEA.

The 'Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management Safety'[18] was adopted in 1997. It is a 'joint'

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ionizing radiation from such installations; and to prevent accidents with radiological consequences and to mitigate such consequences should they occur.

[13] Published under the title 'The Safety of Nuclear Installations', Fundamental Safety Principles (SF-1).

[14] Recital iii of the preamble of the Nuclear Safety Convention.

[15] Ibid., recital viii.

[16] Ibid., recital vii, which states that the Nuclear Convention is an 'incentive instrument'.

[17] Article 5 of the Nuclear Safety Convention.

[18] The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, 5 September 1997, in force 18 June 2001, INFCIRC/546, IAEA. Initially, the Nuclear Safety Convention would cover all safety related issues, including the management of radioactive waste. It was eventually decided that a separate Convention had to be drawn up for radioactive waste management and spent fuel management. For a detailed examination, see Wolfram Tonhauser and Odette Jankowitsch, 'The Joint Convention on the Safety of Spent Fuel

convention, because it regulates both 'spent fuel' and 'radioactive waste'. While some states regard 'spent fuel' as a waste product, other states regard it as an asset that can be reprocessed.[19] Some states insisted on separate conventions for spent fuel and radioactive waste, and this made the negotiations very difficult.[20] The compromise was separate chapters, bridged by a common preamble and some common chapters.[21]

The Convention is based on the 'Principles of Radioactive Waste Management',[22] an instrument developed by the IAEA. In some respects, the structure of the Convention is similar to the Nuclear Safety Convention. It obliges Contracting Parties to take legislative, regulatory, and administrative measures and to ensure that humans and the environment are protected against radiological hazards, by appropriate siting, design, and construction of facilities. It also obliges Contracting Parties to ensure the safety during the operation of facilities and after closure. It further imposes obligations on transboundary movement of spent fuel and radioactive waste.[23] The Convention only applies to the management of spent fuel and radioactive waste from civilian nuclear reactors.[24] Materials used within military or defence programmes are explicitly excluded.[25]

Management and on the Safety of Radioactive Waste Management' (1997) 60 *Nuclear Law Bulletin* 9–22.

[19] On the potentials of spent fuel from a policy perspective, see Richard B. Stewart, 'U.S. Nuclear Waste Law and Policy: Fixing a Bankrupt System', New York University School of Law, Public Law and Legal Theory Research Paper Series, Working Paper No. 09-28, p. 784.

[20] Pelzer, 'Learning the Hard Way', p. 91.

[21] The Preamble states that the 'same safety objectives' apply to spent fuel and nuclear waste management.

[22] The Principles of Radioactive Waste Management, Safety Series No. 111-F, International Atomic Energy Agency, Vienna, 1995. The publications of the IAEA Safety Series follow a hierarchical scheme in four levels: the 'Safety Fundamentals' (the basic objectives, concepts and principles'); the 'Safety Standards' ('the basic requirements which must be satisfied to ensure safety for particular activities or application areas'); the 'Safety Guides' (recommendations on the basis of international experience, relating to the fulfilment of basic requirements'); and the 'Safety Practices' (practical examples and detailed methods).

[23] This part of the Convention is based on the 'IAEA Code of Practice on the International Transboundary Movement of Radioactive Waste'.

[24] The Joint Convention defines 'spent fuel' as 'nuclear fuel that has been irradiated in and permanently removed from a reactor core.' It defines 'radioactive waste' as 'radioactive material in gaseous, liquid or solid form for which no further use is foreseen […] and which is controlled as radioactive waste by a regulatory body under the legislative and regulatory framework of the Contracting Party'. See Article 2 of the Joint Convention.

[25] The Convention applies to materials that have been 'transferred permanently to and managed within civilian programmes'. It also applies to materials that the Contracting Party has declared as a matter of spent fuel or radioactive waste for the purposes of the Convention. See Article 3 of the Joint Convention.

The Joint Convention includes several references to the 'environment' and to environmental law instruments; for example, it refers to the Basel Convention[26] on movement and disposal of hazardous wastes.[27] It also contains principles that are similar to principles found in environmental treaties; for example, it states that radioactive waste should be disposed of in the state in which it was generated. This seems to be related to the 'polluter pays' principle in environmental law. In this sense, one might argue that the Joint Convention is an environmental law instrument.

Similar to the Nuclear Safety Convention, the Joint Convention does not provide detailed technical standards; it is rather a 'framework'. Further, similar to the Nuclear Safety Convention, it is an 'incentive instrument': it uses a peer review system to achieve compliance. Some commentators criticise this element for being too weak. The peer review system is based on the assumption that states do not want to be blamed by peers. But the review meetings are confidential and this potentially limits the effectiveness of the system; transparency might be a necessary element to make it more effective. The only information made public are the 'summary reports', which contain the reviews and the replies. These reports, however, are criticised for being framed in diplomatic terms.[28]

The Chernobyl accident was the impetus for the international nuclear safety regime, first for emergency measures, then for preventive measures. Nevertheless, nuclear safety is still largely seen as a matter of national sovereignty. The Fukushima accident in 2011 did not change this. Further, the accident did not have the same impact as Chernobyl on the international legal framework. This can be explained by two reasons. First, international legislation was already in place. Second, the accident did not result in any (or only very little) transboundary radioactive contamination; the problem stayed in Japan.

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[26] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Basel, 22 March 1989, in force 5 May 1992, 1673 UNTS 57/ [1992] ATS 7/ 28 ILM 657 (1989).

[27] Radioactive waste is explicitly excluded from the scope of the Basel Convention, provided that such waste is covered by another international instrument. See Article 1.3 of the Basel Convention.

[28] Pelzer, 'Learning the Hard Way', p. 93.

5.2 Evolving Competence

Let us now turn to the Euratom and the EU regime on nuclear safety. The Euratom Treaty does not contain a title on Nuclear Safety for installations. Why is this? When studying the early Community documents, it becomes clear that the Treaty founders must have been aware of the risks that accompany the use of nuclear energy.[29] The risk of major accidents had not been overlooked; rather, the Treaty founders had decided that the competence would rest with the Member States. In 1975, the Council adopted a Resolution on the technological problems of nuclear safety.[30] But beyond this non-binding instrument, nuclear safety was a national matter. Emergency measures were also a national matter.

In the years following the Chernobyl accident, however, the European Communities started to adopt some emergency measures. They were based on the Euratom's 'flexibility clause', Article 203 (cf. Article 352 TFEU) and the 'Health and Safety' provisions (Articles 30 to 39 Euratom). But the competence was limited. When the international community started to adopt conventions on nuclear safety (the 'nuclear safety family' conventions), the question was raised of what could be done with this competence. Our focus now turns to the Euratom's accession to the four 'nuclear safety family conventions'.

5.2.1 Concluding Conventions

The Euratom is a party to all the four 'nuclear safety family Conventions'. It became a party to the Nuclear Safety Convention in 2000, the Joint Convention in 2005, and the two emergency conventions in 2006. The Euratom was an active actor in the negotiations. All four Conventions include a provision on accession by 'regional integration organisations', defined as an organisation 'constituted by sovereign States, which have competence in respect of the negotiation, conclusion and application of international agreements [in matters covered by

[29] See, e.g., the Euratom's Third General Report on the Activities of the Community (March 1959 to April 1960), p. 61, para 80. See also Case C-29/99, *Commission* v. *Council* ('Nuclear Safety Case') [2002] ECR I-11221, Opinion of AG Jacobs.
[30] Council Resolution of 22 July 1975 on the technological problems of nuclear safety OJ 1975 No. C185, 14 August 1975, p. 1.

this Convention]'.[31] The provisions were inserted with the Euratom in mind; no other regional organisation has acceded.

The Euratom's accession was not uncomplicated. Shortly after the accident, the Euratom took steps to accede to the 'Early Notification Convention' and the 'Assistance Convention'. But it did not accede until 20 years later. Why did it take such a long time? We shall answer this question after having outlined some provisions on how the Euratom enters international agreements.

5.2.2 The Euratom's External Competence

The Euratom seems to possess a general competence to conclude international agreements. Article 101 Euratom reads:

> The Community may, within the limits of its powers and jurisdiction, enter into obligations by concluding agreements or contracts with a third State, an international organisation or a national of a third State.

This provision says that the Euratom can enter international agreements in all areas 'within the limits of its powers and jurisdiction'. As explained in Chapter 3 ('Nuclear Industrial Development'), this is sometimes referred to as 'the principle of parallelism' or '*in foro, ex foro*'.[32] It means that if the Euratom has internal power in a field, it can also enter into international agreements in that field.

The second and third paragraph of Article 101 Euratom sets out the procedure for concluding agreements:

> Such agreements or contracts shall be negotiated by the Commission in accordance with the directives of the Council; they shall be concluded by the Commission with the approval of the Council, which shall act by a qualified majority.

[31] See Article 39.4.1(i) of the Joint Convention; Article 30.4.1(i) of the Nuclear Safety Convention; Article 14.5.a of the Assistance Convention; and Article 12.5.a of the Early Notification Convention.
[32] See the discussion in the section on 'External Trade' in Chapter 3, 'Nuclear Industrial Development'.

Agreements or contracts whose implementation does not require action by the Council and can be effected within the limits of the relevant budget shall, however, be negotiated and concluded solely by the Commission; the Commission shall keep the Council informed.

How is this provision different from Article 218 TFEU, the corresponding provision under the TFEU? Under Article 218 TFEU, the Commission negotiates and the Council then approves. The role of the European Parliament varies, depending on the agreement.[33] To enter some agreements, it shall give its opinion. To other agreements, it has to give its consent. By contrast, under Article 101 Euratom, the European Parliament has no role whatsoever. The Commission shall conclude the agreement after the Council has approved it. The Commission may even conclude certain agreements alone, without the Council's approval.

The Euratom Treaty also provides for a special procedure to enter 'mixed agreements'.[34] Such a procedure applies when, in addition to the Community, one or more Member States will be parties. Article 102 reads:

Agreements or contracts concluded with a third State, an international organisation or a national of a third State to which, in addition to the Community, one or more Member States are parties, shall not enter into force until the Commission has been notified by all the Member States concerned that those agreements or contracts have become applicable in accordance with the provisions of their respective national laws.

According to this procedure, mixed agreements do not come into force until all the Member States concerned have notified the Commission that the agreements have become applicable in national law. The Court referred to Article 102 in *Ruling* 1/78,[35] which concerned the Euratom's accession to the draft IAEA Convention on Nuclear Protection.[36] Belgium had asked the Court to clarify the necessity for the Community to participate in the Convention. The Court held that it was necessary that the Community participated in the Convention in order

[33] See Article 218 TFEU (ex Article 300 EC). The Lisbon Treaty introduced the requirement to obtain the European Parliament's consent for certain agreements.
[34] A provision on mixed agreements for agreements under the EEC was not inserted until the Nice Treaty (now in Article 207 TFEU).
[35] Ruling 1/78 [1978] ECR-2151.
[36] The Convention on the Physical Protection of Nuclear Material (CPPNM) Vienna, 26 October 1979, in force 8 February 1987, 1456 UNTS 101; TIAS 11080; 18 ILM 1419 (1979). The Euratom signed it in 1980, and acceded in 1991. The CPPNM will be discussed in Chapter 6, 'Non-Proliferation'.

to protect the effectiveness of the system of physical protection.[37] The Court then clarified how this would work:

[T]he draft convention put forward by the International Agency can be implemented as regards the Community only by means of a close association between the institutions of the Community and the Member States both in the process of negotiation and conclusion and in the fulfilment of the obligations entered into. This situation was foreseen by the [Euratom] Treaty.

This passage has been referred to as the constitutional foundation of 'the duty of cooperation'.[38] In the Ruling, the Court also explains when Article 102 shall apply. The Court explains:

Where it appears that the subject-matter of an agreement or contract falls in part within the power and jurisdiction of the Community and in part within that of the Member States there are strong grounds for using the procedure envisaged by Article 102 of the Treaty whereby such obligations may be entered into by the Community in association with the Member States.[39]

So, while Article 101 Euratom specifies how the Euratom can accede to a convention, Article 102 Euratom determines under what circumstances mixed agreements enter into force. All four 'nuclear safety family conventions' were mixed agreements, so both of these procedures applied.

5.2.2.1 The Euratom and the Nuclear Safety Convention

The Commission submitted a proposal on the Euratom's accession to the Council the same year as the Nuclear Safety Convention was adopted.[40] The Commission was of the view that the Convention was compatible with the provisions in the Euratom Treaty and with Euratom legislation, and it considered the accession necessary in order to ensure future compatibility.

The Convention states that regional integration organisations[41] have to communicate a Declaration of Competence, which indicates the extent of their

[37] The Court found that 'the system of physical protection organized by the draft Convention could only function in an effective manner, within the ambit of Community law, on condition that the Community itself is obliged to comply with it in its activities'. See Ruling 1/78, para 32.
[38] See Christophe Hillion, 'Mixity and Coherence in EU External Relations: The Significance of the Duty of Cooperation', in Christophe Hillion and Panos Koutrakos (eds.), *Mixed Agreements Revisited: the EU and Its Member States in the World* (Oxford: Hart, 2010), pp. 87–116.
[39] Ruling 1/78, para 34.
[40] Proposal for a Council Decision concerning the approval of the conclusion by the European Atomic Energy Community of the Nuclear Safety Convention, COM(1994) 362 final.
[41] Article 30(4) of the Nuclear Safety Convention.

competence in respect of matters covered by the Convention.[42] The Commission submitted such a Declaration in its proposal for a Council Decision on accession.[43] The Council approved the accession, but attached a different Declaration to its Decision.[44] The Commission then concluded the Convention (by virtue of Article 101 Euratom). The Council's Declaration accompanied the accession instrument.[45] But the Commission was not pleased with the Council's Declaration, so it brought an action to the Court for partial annulment of the Council Decision.

We shall discuss the *Nuclear Safety* Case in further detail below. It suffices here to say that there was no disagreement between the Commission and Council on whether the Euratom should accede to the Convention. Rather, the disagreement concerned the scope of the Community's competence, i.e., the extent to which the Euratom was considered bound by the Convention.[46] The Court partially annulled the Council Declaration on the ground that certain provisions of the Convention had not been referred to therein. A new Declaration was later drawn up,[47] but the Court's decision did not change the fact that the Euratom was already a party. As shall be explained, the case paved the way for the Euratom's accession to the other three international conventions in the field.

[42] Ibid, Article 30(4)(iii).
[43] The Commission's declaration of competence stated that Articles 1 to 5, 7 and 14 to 35 of the Convention shall apply to the Community, and that the Community possesses competences in the fields covered by Articles 1 to 5, 7 and 14 to 19 of the Convention.
[44] The Council's declaration read: 'The Community declares that Articles 15 and 16(2) of the Convention apply to it. Articles 1 to 5, Article 7(1), Article 14(ii) and Articles 20 to 35 also apply to it only in so far as the fields covered by Articles 15 and 16(2) are concerned'. The Council also declared that the Community possesses competence, shared with the Member States, in the fields covered by Articles 15 and 16(2) of the Convention as provided for by Article 2(b) Euratom and the relevant articles of Title II, Chapter 3 'Health and safety' of the Euratom Treaty.
[45] Commission Decision 1999/819/Euratom of 16 November 1999 concerning the accession to the 1994 Convention on Nuclear Safety by the European Atomic Energy Community (Euratom) OJ 1999 No. L318, 11 December 1999, p. 20.
[46] See Case C-29/99, *Commission* v. *Council* [2002] ECR I-11221, the Opinion of AG Jacob.
[47] See also Commission Decision 2004/491/Euratom of 29 April 2004 amending Commission Decision 1999/819/Euratom of 16 November 1999 concerning the accession to the 1994 Convention on Nuclear Safety by the European Atomic Energy Community (Euratom) with regard to the Declaration attached thereto, OJ 2004 No. L172, 6 May 2004, p. 7.

5.2.2.2 The Euratom and the Emergency Conventions

In 1987, the Council approved the accession to the Early Notification Convention.[48] Two years later, it approved the accession to the Assistance Convention.[49] But the Commission did not conclude them, and the result was that the Euratom did not accede. Accession did not take place until 2006. In a memorandum accompanying the new proposal from 2004 on accession to the two Conventions,[50] the Commission explained its long inaction: the Commission and the Council had not been able to agree on the extent to which the Community was bound by the Conventions.

As mentioned, both Conventions provide that international organisations and regional integration organisations communicate a Declaration of Competence.[51] The Council had limited the Euratom's competence to cover only the activities of the four Joint Research Centres.[52] The Commission had envisaged a more central role for the Community.[53] In the Commission's new proposal, submitted almost 20 years later, it held that: '[s]ubsequent experience with the exercise of Community powers in the field covered by the Convention, has revealed the inappropriate nature of the [Council] declarations'. The Commission was here referring to the Euratom's internal competence, more precisely, to the fact that the Euratom had adopted the ECURIE system, which is the Community's own arrangement for the early exchange of information in the event of a radiological

[48] The Council approved the conclusion of the Convention on Early Notification of a Nuclear Accident by a Decision (unpublished) of 14 December 1987.
[49] The Council approved the conclusion of the Convention on Assistance in the case of a Nuclear Accident or Radiological Emergency by a Decision (unpublished) of 27 November 1989.
[50] Proposal for a Council Decision approving the conclusion of the Convention on Early Notification of a Nuclear Accident and Proposal for a Council Decision approving the conclusion of the Convention on Assistance in the case of a Nuclear Accident or Radiological Emergency, COM(2004) 560 final.
[51] See Article 5c of the Early Notification Convention and Article 5c of the Assistance Convention.
[52] With regard to the Assistance Convention, the Commission also argued that the Council's Declaration 'limited the use of the dispute settlement mechanism in Article 11(3) of the Convention'. The Declaration stated: 'Since only States can be Parties in cases brought before the International Court of Justice, in accordance with Article 34 of its Statutes, the Community can be bound only by the arbitration procedure referred to in Article 11(2) of the Convention'. The Commission argued that 'in view of the Community's own mechanisms, such a declaration is unnecessary and might even be incomplete' and that 'a declaration of this type appears never to have been made in the context of other mixed agreements concluded by the Community in the past'. See COM(2004) 560 final.
[53] The Commission was of the view that the Community shares and exercises with its Member States 'true competence in the field', which could not be limited solely to the activities of the Joint Research Centres. See Draft Council Decision Approving the Conclusion of the Convention on Early Notification of a Nuclear Accident, COM(1986) 760 final.

emergency.[54] It was established in 1987, on the same day as the Council approved the Early Notification Convention.[55] It is adopted on the basis of Article 31 Euratom.

The ECURIE system shows many similarities to the Convention, but gives the Commission a coordinating role instead of the IAEA. When an incident occurs, it is the Commission that will collect and transmit the information. The Commission cooperates closely with the IAEA, in order to make the international system and the ECURIE system coherent. This is important in order to avoid a situation where Member States receive contradictory information. The Commission argued that 'it is therefore essential that the Community becomes Party to the Convention in the same way as its Member States'.

The Commission also drew attention to the Monitoring and Information Centre (MIC), established in 2001.[56] The MIC can be used by Member States to inform other States and to request their assistance. Thus, it relates to both the Early Notification Convention and the Assistance Convention.[57] The MIC can be used for all kinds of emergencies, including nuclear accidents and radiological emergencies. It is adopted on a dual legal basis: Article 308 EC (now Article 352 TFEU) and Article 203 Euratom (which is the corresponding Euratom provision). Prior to the MIC, a mechanism for assistance between the Member States in case of a nuclear accident was only implied in other instruments. In the view of the Commission, 'the concept of mutual assistance by Member States is inherent in

[54] Council Decision 87/600/Euratom of 14 December 1987 on Community arrangements for the early exchange of information in the event of a radiological emergency, OJ 1987 No. L371, 30 December 1987, p. 76.
[55] Note also Article 5 of Directive 80/836/Euratom (now repealed), which stated: 'Any accident involving exposure of the population must be notified as a matter of urgency, when the circumstances so require, to neighbouring Member States and to the Commission'. Council Directive 80/836/Euratom of 15 July 1980 amending the Directives laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation, OJ 1980 No. L246, 17 September 1980, p. 1.
[56] Council Decision 2001/792/EC, Euratom of 23 October 2001 establishing a Community mechanism to facilitate reinforced cooperation in civil protection assistance interventions, OJ 2001 No. L297, 15 November 2001, p. 7.
[57] Prior Lisbon, Article 203 Euratom and Article 308 EC provided for similar legislative procedures. The Council had to act unanimously and the European Parliament was to be consulted. After Lisbon, Article 352 TFEU now requires the assent of the European Parliament. The Council must still act unanimously. There was no reform of Article 203 Euratom. Thus, the European Parliament does not have to consent to new legislation; it merely has the right to be consulted.

the rules on preparing for radiological emergencies'.[58] The Commission then pointed to different instruments, based on the Euratom Treaty's 'Health and Safety' provisions, which according to the Commission, refer to the concept of mutual assistance.[59]

Why did the Council want to limit the Euratom's competence in the Declarations? The ECURIE system had been adopted on the same day as the Early Notification Convention. The systems are very similar. As there was already an information system in place at the EU level, what difference would it make if the Euratom would accede to the international system? The answer seems to be that the Member States wanted to retain their right to remain the prime correspondents to inform the IAEA on nuclear accidents and emergencies on their territories, and to be the prime correspondents to receive such information.[60] If the Euratom would be bound by the Convention in any wider sense, this would change. There were similar concerns regarding the Assistance Convention, i.e., the Member States wanted to retain their possibility to individually request assistance and respond to such requests.

In 2004, the Commission submitted new proposals for a Council Decision approving the accession to the two Conventions. The Council approved them, including the Commission's new Declarations of Competences. Thereafter, the

[58] See the explanatory memo attached to the Proposal for a Council Decision approving the conclusion of the Convention on Assistance in the case of a Nuclear Accident or Radiological Emergency, COM(2004) 560 final.

[59] The Commission referred to the Preamble of Council Directive 89/618/Euratom of 27 November 1989 on informing the general public about health protection measures to be applied and steps to be taken in the event of a radiological emergency; Article 51(5) of Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation; and Article 11 of Council Directive 2003/122/Euratom of 22 December 2003 on the control of high-activity sealed radioactive sources and orphan sources also stipulates the need for international cooperation (now replaced by Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionizing radiation, OJ 2014 No. L13, 17 January 2014, p. 1).

[60] See Document 8283/05 concerning the adoption of Council Decisions approving the conclusion of: a) the Convention on Early Notification of a Nuclear Accident, and b) the Convention on Assistance in the case of a Nuclear Accident or Radiological Emergency drafted after the Working Group meeting. Draft Statement to the Council Minutes, Council (AQC) on 8 April 2005, adopted by the Council (General Affairs and External Relations) on 23 May 2005: 'The Council and the Commission acknowledge that, subject to possible evolution of Community law, Member States, Parties to the Conventions, retain their right to remain the priority correspondents to inform the IAEA on nuclear accidents and emergencies on their territories, and receive such information, as well as to request assistance and respond to requests for assistance when giving such assistance falls under the competence of Member States'.

Commission concluded the Conventions. Why did the Council now accept the Commission's new Declarations of Competence? This change of course should be seen in the light of the *Nuclear Safety* Case, which was decided in 2002. This case has already been briefly touched upon. A more comprehensive exposition is provided below. It suffices here to say that the Court clarified that the Euratom's 'Health and Safety' provisions covered emergency preparedness. It thereby paved the way for the Euratom's accession to the two emergency conventions.

Perhaps to avoid a new dispute on the scope of competence, the new Declarations were much less precise than the Declarations from 1987 and 1989. They merely point out that the Community possesses competences, shared with its Member States 'in the field of notification of radiological emergencies', respectively 'in the field of assistance in the event of a radiological emergency', and to the extent provided by Article 2(b) Euratom and the Euratom's 'Health and Safety' provisions. Thus, the Declarations do not specify which provisions are relevant.[61]

The Commission and Council attached a draft statement to the minutes from the Council meeting where the Euratom's accession to the two emergency conventions was discussed, reflecting the language from *Ruling 1/78*: '[T]he Council and the Commission note that [the declarations of competence] are without prejudice to the exact nature and sharing of the Community and Member States competences and any further analysis of the matter, taking into account relevant developments'.[62] This way of formulating the declaration complies with

[61] Convention on Early Notification of a Nuclear Accident – 'Declaration referred to in Article 12(5)(c) of the Convention on Early Notification of a Nuclear Accident', OJ 2005 No. L314, 30 November 2005, p. 22: 'The Community possesses competences, shared with its Member States, in the field of notification of radiological emergencies, to the extent provided by Article 2(b) and the relevant provisions of Title II, Chapter 3 'Health and Safety' of the Treaty establishing the European Atomic Energy Community'. See also 'Declaration referred to in Article 14(5)(c) of the Assistance Convention', which reads in much similar terms: The Community shares competence with its Member States in respect of assistance in the event of a radiological emergency on the basis of Article 2(b) and of the relevant provisions of Title II, Chapter 3 'Health and Safety' of the Treaty establishing the European Atomic Energy Community.

[62] In *Ruling* 1/78, the Court held: 'It is not necessary to set out and determine, as regards other parties to the convention, the division of powers in this respect between the Community and the Member States, particularly as it may change in the course of time […] It is sufficient to state to the other contracting parties that the matter gives rise to a division of powers within the Community, it being understood that the exact nature of that division is a domestic question'. Ruling 1/78 [1978] ECR-2151, para 35.

the *Nuclear Safety* Case, in which the Court states that a Declaration shall be 'complete' in the 'interest of the other contracting parties'.[63]

5.2.2.3 The Euratom and the Joint Convention

The Commission submitted its proposal for accession in 2001, prior to the Court's judgement in the *Nuclear Safety* Case.[64] It suggested Article 174.4 EC (environment) and Article 300.2 EC as legal bases. The Commission explained that the reason for choosing the EC Treaty was that the environment, as an 'independent concept', was not covered in the Euratom Treaty. The Commission also explained that in the area covered by the Joint Convention, there are aspects of environmental protection, which go beyond the scope of the Euratom Treaty. The ECJ then clarified the scope of the Euratom competence. The Council's Decision to accede was finally based on the Euratom Treaty instead of the EC Treaty.[65] The Commission concluded the Convention.[66] The Euratom acceded to the Joint Convention in 2005.

5.2.2.4 Conclusion

Although the Council had approved the two Emergency Conventions, the Euratom did not accede because the Commission did not conclude them. Of course, this does not mean that the Commission has the ultimate say. The Council could have argued that the Commission had a duty to cooperate and it could have brought the matter to the ECJ. But the Council did not have any real desire to accede in the first place. It preferred a more limited role for the Euratom and all the Member States were themselves already parties to the Convention. The Commission adopted a different strategy as far as the Nuclear Safety Convention

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[63] *Nuclear Safety* Case, para 70.
[64] Proposal for a Council decision to conclude for the European Community (EC) the 'International Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management', COM(2001) 520 final.
[65] Council Decision 2005/84/Euratom of 24 January 2005 approving the accession of the European Atomic Energy Community to the 'Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management', OJ 2005 No. L30, 3 February 2005, p. 10.
[66] Commission Decision 2005/510/Euratom of 14 June 2005 concerning the accession of the European Atomic Energy Community to the 'Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management', OJ 2005 No. L185, 16 July 2005, p. 33.

was concerned. Despite the disagreement on the scope of competence, the Commission concluded the Convention on the basis of the Council's Declaration. Only when the Euratom had already acceded did the Commission bring an action to the ECJ, which clarified that the Euratom possesses competence in the fields covered by all the four Conventions. The Court thus 'paved the way' to accession. We shall now see how this was achieved and what issues the case involved.

5.2.3 The Nuclear Safety Case

For a long time it was believed that the Euratom Treaty did not provide a legal basis for legislation in the field of nuclear safety for installations and that the legal basis for emergency measures was limited. This all changed with Case C-29/99 *Commission* v. *Council* ('the *Nuclear Safety* Case').[67] The case concerns the Euratom's accession to the Nuclear Safety Convention. This case is central for the Treaty's 'survival', because it provides the Treaty with a new 'rationale'. Given the significance of this case, it is necessary to provide a detailed account. It shall be argued that the Court has overstepped the boundaries of its jurisdiction and enlarged the scope of Euratom competence in defiance of the principle of conferral.

As explained, the Nuclear Safety Convention requires 'regional integration organisations' to declare what articles of the Convention apply to it and the extent of its competence in the field.[68] The Commission attached such a declaration to its proposal for a Council decision approving the Convention. The declaration listed Articles 1 to 5, 7, 14, 15, 16(1)–(3), and 17 to 19 of the Convention. The Council was of the view that the Euratom competences had been stated too broadly.[69] It decided to adopt a more limited declaration, which listed only two articles: Article 15 [radiation protection] and 16(2) [emergency

[67] Case C-29/99, *Commission* v. *Council* [2002] ECR I-11221. For an analysis, see Panos Koutrakos, 'Case C-29/99 Commission v. Council (re: Nuclear Safety Convention)' (2004) 41 *Common Market Law Review* 191–208.
[68] Article 30(4)(iii) of the Nuclear Safety Convention.
[69] Article 1 [objectives]; Article 2 [definitions]; Article 3 [scope of application]; Article 4 [implementing measures]; Article 5 [reporting]; Article 7 [safety assessment]; Article 14 [verification]; Article 17 [siting]; Article 18 [design and construction]; and Article 19 [operation].

preparedness] of the Convention.[70] The Council then approved accession to the Convention and the Commission subsequently concluded the Convention pursuant to the procedure in Article 101 Euratom. The Commission attached the Council's declaration to the deposit instrument. After the Euratom had acceded, the Commission brought an action under Article 146 for partial annulment of the Council Decision that approved the accession. The Commission claimed that the Declaration infringed Community law in that it did not refer to all the competences of the Community in the fields covered by the Convention.[71]

5.2.3.1 The Analysis of the Advocate General

As Advocate General Jacobs pointed out, the central issue in this case was the scope of the Community's competence in matters of nuclear safety.[72] In focus was the question of whether the Euratom's 'Health and Safety' provisions (Articles 30 to 39) provided such competence. As we saw in Chapter 4 'Radiation Protection', these provisions are used to adopt legislation on 'radiation protection'. This is understood as protection for the general public and workers from risks from ionizing radiation, i.e., protection of health. The question in the *Nuclear Safety* Case was whether those provisions also covered regulation of the technological safety of nuclear installations (i.e., 'nuclear safety').

The AG explained that when the Euratom Treaty was negotiated in the 1950s, 'nuclear safety for installations' and 'radiation protection' were two separate disciplines. 'Nuclear safety', on the one hand, concerned the technological safety of radiation sources. Physicists and engineers dominated the field. 'Radiation protection', on the other hand, was a sub-discipline of medical radiology, which was dominated by public health experts. Radiation protection focused on 'dose limits' and 'maximum exposure'. It was believed that exposure to radiation

[70] Article 15 provides that contracting parties shall take 'appropriate steps to ensure that in all operational states the radiation exposure to the workers and the public caused by a nuclear installation shall be kept as low as reasonably achievable and that no individual shall be exposed to radiation doses which exceed prescribed national dose limits'. Article 16(2) reads: 'Each Contracting Party shall take the appropriate steps to ensure that, insofar as they are likely to be affected by a radiological emergency, its own population and the competent authorities of the States in the vicinity of the nuclear installation are provided with appropriate information for emergency planning and response'.
[71] See the *Nuclear Safety* Case, para 57.
[72] See the *Nuclear Safety* Case, Opinion of AG Jacobs, para 122.

below certain limits would not produce harmful health effects on humans. This view is reflected in the Euratom's 'Health and Safety' provisions, which define 'basic standards' in terms of 'maximal permissible dose limits' and 'maximum permissible levels of exposure'.

In the 1970s, it was shown that even low doses of radiation could be harmful (so-called stochastic effects): 'Safe' dose limits could not be defined. As a result of these findings, the ICRP[73] recommended that radiation doses must be kept 'As Low As Reasonably Achievable' (the so-called ALARA principle). According to the AG, this new scientific knowledge meant that the Euratom Treaty's definition of 'basic safety standards' (Article 30) could no longer be relied on for the scope of Articles 30 to 32 Euratom.[74] In other words, Article 30 defines the 'basic standards' in terms of 'maximum exposure' and 'dose limits', but this no longer reflected scientific knowledge; the ALARA principle did not fit into that definition.

The AG claimed that the scientific development had led to a 'significant overlap between nuclear safety and radiation protection'. They could no longer be regarded as separate fields. The distinction between them was merely 'historic'. In the AG's view, 'nuclear safety today' includes both a technological (i.e., nuclear safety) and a radiation protection component. The AG also pointed out that there were some *practical* benefits in treating radiation protection and nuclear safety as an 'integrated' field: 'If radiation protection is to have any practical impact, it must at least try to identify the source which produces the radiation at issue'. He further noted that 'radiation protection' and 'nuclear safety' are also becoming more blurred in an international context. The IAEA has adopted an integrated approach to 'nuclear safety', by combining technical safety aspects with radiation protection.[75]

[73] ICRP (International Commission on Radiation Protection) is a non-governmental organisation consisting of scientific experts from 30 countries.
[74] Opinion of AG Jacobs, para 144–5.
[75] The three most important publications of the IAEA Safety Standards programme ('Safety Fundamentals') are: 'The Safety of Nuclear Installations', 'Radiation Protection and the Safety of Radiation Sources', and 'The Principles of Radioactive Waste Management'. They have been merged into one single publication entitled 'Objectives and Principles of Nuclear, Radiation, Radioactive Waste and Transport Safety'.

The AG then examined the meaning and scope of the Euratom Treaty's 'Health and Safety' provisions. He noted that the Treaty authors had decided not to grant the Community far-reaching powers in the field of 'nuclear safety'. The Spaak Report had envisaged common minimum rules that would regulate nuclear installations, transport, and storage.[76] These rules would have given the Community the responsibility to control the safety of nuclear installations.[77] But the rules were never introduced into the Treaty. The Treaty founders had chosen to limit the Community's competence to 'radiation protection'. The AG asked: 'What should be today's implications of that historical choice'?[78] He then argued:

> [A]s Community law stands, the Member States retain […] exclusive competence for the technological side of nuclear safety. Even if radiation protection must be understood broadly and the wording of Article 30(2) of the Treaty is to a certain extent outdated, it is nevertheless clear that the authors of the Treaty did not intend the Community to interfere with safety of nuclear installations *stricto sensu*.

To the AG, it was clear that the Member States wished to retain technological control over the installations on their territories and that this decision of the authors of the Treaty must therefore be respected. The AG pointed out that the main Community instruments on 'nuclear safety' were merely non-binding Council resolutions, but that the Community undertook many *external* activities that concerned the technological side of nuclear safety, based on Article 203 Euratom (the Treaty's 'flexibility clause', which is corresponding to Article 352 TFEU).[79]

The AG concluded that according to the current understanding of the 'Health and Safety' provisions, there was a considerable overlap between 'radiation

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[76] 'Rapport des Chefs de Délégations aux Ministres des Affaires Etrangères', Comité Intergouvernemental créé par la Conférence de Messine, Brussels, 21 April 1956, p. 109.
[77] Planned installations would have had to be notified to the Community, and the Community would have had the possibility to object to projects for security reasons. The consequence of an objection would be that the installation would not receive fissile material. It would, however, be the authorities of the Member States that would be responsible for day-to-day monitoring of nuclear installations.
[78] Opinion of AG Jacobs, para 137.
[79] Council Decision 1999/25/Euratom of 14 December 1998 adopting a multiannual programme (1998 to 2002) of actions in the nuclear sector, relating to safe transport of radioactive materials and to safeguards and industrial cooperation to promote certain aspects of the safety of nuclear installations in the countries currently participating in the Tacis programme, OJ 1999 No. L7, p. 31; see in this context also the Resolution of the European Parliament of 11 March 1999, OJ 1999 No. C175, p. 288.

protection' and 'nuclear safety'.[80] The 'Health and Safety' provisions were to be interpreted broadly. The Euratom shared 'certain – albeit limited – competences with the Member States *as regards the radiation protection aspects of nuclear safety.*'[81] The AG then explained that this was evident from the Euratom Treaty objectives; the possibility to 'revise' and 'supplement' the basic standards under Article 32 Euratom; the evolution over time of the scientific and international legal background of those Articles; the practice in their application; and the Court's case law. The AG suggested adding the following Convention articles to the Declaration of Competences (in addition to Article 15 [radiation protection] and 16(2) [emergency preparedness] of the Convention, which the Council had included): Articles 7 [legislative and regulatory framework], 14 [assessment and verification of safety], 16(1) and 16(3) [emergency preparedness], and 17 [siting].

5.2.3.2 The Judgement of the European Court of Justice

The ECJ first addressed some questions of a procedural nature. It then mapped out some general considerations on competence in the field of nuclear safety, and finally examined the Convention articles specifically in order to find a legal basis in the Euratom Treaty.

Procedural Issues

The Council had claimed that the application was inadmissible on the ground that the Decision was indivisible, and that the Declaration was an essential part of the Decision. The Court explained that it followed from the Court's case law that 'partial annulment of a decision is possible if the elements whose annulment is sought may be severed from the remainder of the decision'. It decided that this was indeed possible, and rejected this objection.[82]

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[80] Opinion of AG Jacobs, para 210.
[81] Ibid., paras 139 and 210. Emphasis added.
[82] The Council had also contended that the Commission's action lacked purpose and that the Commission's action was an opinion on the extent of the Euratom's competence (paras 36–56). The Council argued that there was no provision in the Euratom Treaty, similar to the one in Article 300(6) EC, which provided that the Commission can request whether an agreement is compatible with the EC Treaty. The Court held that there was no indication that the Commission's action served any other purpose than partial annulment of the decision and that the absence of such a procedure in the Euratom Treaty did not preclude the Court from

The Court then decided on the question of whether there is a Community law obligation to communicate a complete Declaration of Competences.[83] It explained that the Council must respect an international convention's accession conditions, and that an incomplete Declaration would constitute a breach of the Euratom's international law obligations. The Court found that these obligations, however, did not come from international law, but from a Community law principle: the principle of 'sincere cooperation' between the institutions. The Council Decision must 'enable the Commission to comply with international law'.[84] As Koutrakos points out, this principle is different from 'duty of cooperation' that binds the EU and the Member States in negotiating, concluding, and implementing international agreements.[85] The principle in the *Nuclear Safety* Case concerns a duty of cooperation between the institutions, not between the Member States and the institutions. It has a different rationale, and a different origin.[86] The Court also found that an interpretation of the Convention showed that the Declaration must be complete 'in the interest of the other contracting parties'.[87] Thus, the Council was required to attach a complete Declaration to its decision approving accession to the Convention.

Does this contradict *Ruling* 1/78? In the *Ruling*, the Court stated:

[I]t is not necessary to set out and determine, as regards other parties to the convention, the division of powers […] between the Community and its Member States, particularly as it may

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determine the legality of an act approving a decision to accede to an international agreement in an action for annulment pursuant to Article 146 Euratom (now repealed). Cf Opinion 2/2000, where the Court held that Article 300(6) EC was designed to 'forestall the complications which could arise both at international level and at Community level where it becomes apparent, following conclusion of an international agreement by the Community, that the agreement is not compatible with the Treaty. That procedure is not intended to solve difficulties associated with implementation of an envisaged agreement which falls within shared Community and Member State competence'. Opinion 2/2000 (re Cartagena Protocol) [2001] ECR I-9713, para 17.

[83] *Nuclear Safety* Case, paras 67–71.

[84] Ibid., para 69.

[85] Koutrakos, 'Case C-29/99 Commission v. Council (re: Nuclear Safety Convention)', 199. But note Case 65/93, *Parliament* v. *Council* [1995] ECR I-643, para 23, which concerned the 'consultation procedure' under the EC Treaty. The European Parliament had used its power to delay under the consultation procedure. The Court pointed out (in that case) that the European Parliament had failed in its duty of genuine cooperation with the Council, and that the consultation procedure 'is subject to *the same mutual duties* of sincere cooperation as those which govern relations between Member States and the Community institutions' (emphasis added).

[86] For an account of the origin of the duty of cooperation between the Member States and the institutions, see Hillion, 'Mixity and Coherence in EU External Relations'.

[87] *Nuclear Safety* Case, paras 70–1. See Article 30(4)(iii) of the Nuclear Safety Convention.

change in the course of time. It is sufficient to state to the other contracting parties that the matter gives rise to a division of powers within the Community, it being understood that the exact nature of that division is a domestic question in which third parties have no need to intervene.[88]

In the *Nuclear Safety* Case, the AG explains that this passage has to be placed in its context.[89] It was handed down at a time when the Convention at issue was still being drawn up. The negotiating parties had not yet agreed on the clauses necessary to enable an international organisation to participate. But in the *Nuclear Safety* Case, this was 'too late'; the Convention signatories had already decided to require the Community to reveal the internal division of power. Koutrakos rightly points out that 'it is one thing for the precise extent to which competences are shared not to be defined, and quite another for competences not to be declared at all'.[90]

General Considerations on Competence in the Field of Nuclear Safety

The Court then mapped out some general considerations with respect to the Community's competences in the field of nuclear safety.[91] It explained that as the Euratom Treaty does not contain a title that relates to nuclear installations, the outcome of the proceedings depended on the interpretation of the 'Health and Safety' provisions. That interpretation had to be carried out in the light of the Treaty objective set out in the Preamble to 'create the conditions of safety necessary to eliminate hazards to the life and health of the public'.[92] It also had to take into account the fact that the 'Health and Safety' provisions implement Article 2(b), which states that the Community shall 'establish uniform safety standards to protect the health of workers and of the general public and ensure that they are applied'.[93] The Court held that 'it is apparent that such protection cannot be achieved without controlling the sources of harmful radiation'.

[88] Ruling 1/78 [1978] ECR 2151, para 35.
[89] *Nuclear Safety* Case, Opinion of AG Jacobs, paras 107–15.
[90] Koutrakos, 'Case C-29/99 Commission v. Council (re: Nuclear Safety Convention)', 200.
[91] *Nuclear Safety* Case, paras 72–83.
[92] Ibid., para 75.
[93] Ibid., para 76.

The Court pointed out that it had interpreted the 'Health and Safety' provisions broadly on several occasions in order to give them 'practical effect'.[94] It referred to Case 187/87 *Land de Sarre and others*, [95] where it had held that these provisions' form 'a coherent whole conferring on the Commission powers of some considerable scope in order to protect the population and the environment against the risks of nuclear contamination'.[96] In that case, the Court had also held that the interpretation of Article 37 Euratom was to ensure that the provision retained its effectiveness.[97] The Court also referred to Case C-70/88 *Parliament* v. *Council*,[98] where it had held that the 'Health and Safety' provisions were 'to ensure consistent and effective protection of the health of the general public against the dangers arising from ionizing radiations, *whatever their source'*.[99] The Court further referred to Directive 96/29 ('the Euratom BSS Directive'),[100] which lays down basic safety standards for the protection of the health of workers and the general public. It pointed out that the Directive preamble 'takes into account the development of scientific knowledge concerning radiation protection', and that this development is 'described in detail by the Advocate General'.[101]

In the light of these considerations, the Court found that 'it is not appropriate, in order to define the Community's competences, to draw an artificial distinction between the protection of the health of the general public and the safety of sources of ionising radiation'.[102] In other words, there was no distinction between 'radiation protection' and 'nuclear safety for installations'. The Court then had to decide whether the Euratom possesses competences in the fields covered by the Convention articles.

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[94] Ibid., paras 78–80.
[95] Case 187/87, *Saarland and Others* [1988] ECR 5013. See Chapter 4, 'Radiation Protection'.
[96] Ibid., para 11.
[97] Ibid., para 19.
[98] *Nuclear Safety* Case, para 80.
[99] See Case C-70/88, *Parliament* v. *Council* [1991] ECR I-4529, para 14. Emphasis added.
[100] Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation, OJ 1996 No. L159, 29 June 1996, p. 1.
[101] See Recital 6 of Directive 96/29/Euratom. See Opinion of AG Jacobs, paras 123–32.
[102] *Nuclear Safety* Case, para 82.

Specific Competences in the area of Nuclear Safety

The Court then examined the contested Convention articles and compared them with the Euratom Treaty's 'Health and Safety' provisions. The Court first found that some Convention articles (Articles 1 to 5) did not need to be included in the Declaration because they did not give rise to obligations or they did not relate to specific obligations.[103] It then noted that the Commission and the Council were in agreement that Article 15 [radiation protection] should be included in the Declaration. As explained in the previous chapter, the Euratom Treaty provides a clear legal basis for radiation protection and the Euratom has adopted a significant body of law in that field.

The institutions also agreed that Article 16(2) of the Convention should be included. That article states that the Contracting Parties shall provide its own population and national authorities with appropriate information for emergency planning. The Euratom BSS Directive provides for a similar obligation. But Articles 16(1) and 16(3) of the Convention also concern emergency preparedness. The institutions could not agree on whether to include them.[104] Article 16(1) provides that Contracting Parties shall 'ensure that there are on-site and off-site emergency plans that are routinely tested for nuclear installations and cover the activities to be carried out in the event of an emergency'. Article 16(3) sets up obligations for Contracting Parties that do not have a nuclear installation on their territory.

The Court found a legal basis in the Euratom Treaty for these Convention provisions by reading Article 30 Euratom together with Article 32 Euratom. As explained, Article 30 provides that the Euratom shall establish 'basic standards' and Article 32 provides for the possibility to 'supplement' the basic standards. The Court found that these provisions confer on the Community the competence to lay down 'basic standards for emergency measures', which include the power

[103] While Articles 1 [objectives], 2 [definitions] and 3 [scope of application] did not give rise to obligations, Article 4 [implementing measures] and 5 [reporting] did not relate to specific obligations (Article 4 provides that the Contracting Parties shall take necessary steps for implementing its obligations under the Convention; and Article 5 provides that the Contracting Parties shall submit for review a report on the measures it has taken to implement the obligations). Ibid., paras 84–87.
[104] Ibid., paras 97–101.

to require Member States to draw up a plan laying down such measures in respect of nuclear installations.[105]

The Court adopted a similar reasoning in relation to Article 7 of the Convention,[106] which requires the Contracting Parties to establish and maintain a legislative and regulatory framework. The Court recognised that the Euratom Treaty does not grant the Community competence to authorise the construction or operation of nuclear installations, but that it possesses the competence to establish an authorisation system for the purpose of health protection under Articles 30 to 32 Euratom.[107] It explained that such a legislative act constitutes a measure 'supplementing the basic standards'.

The Court also examined Article 14 of the Convention, which requires the Contracting Parties to guarantee that 'verification' is carried out to ensure that the nuclear installation continues to be 'in accordance with its design, applicable national safety requirements and operational limits and conditions'. The Court found the competence for verification in Article 35 Euratom, which stipulates that the Member States shall establish 'monitoring facilities' (to carry out monitoring of the level of radioactivity in the air, water and soil) and that the Commission has the right of access to such monitoring facilities, and that it may verify their operation and efficiency. Article 14 of the Convention also requires Contracting Parties to ensure that 'safety assessments' are carried out 'before the construction and commissioning of a nuclear installation, and through its life'. The Court found the competence for such safety assessment in Article 33 Euratom,[108] which requires Member States to lay down appropriate provisions to ensure compliance with the basic standards.[109] It also requires Member States to communicate draft provisions to the Commission, which may issue recommendations for harmonisation of such provisions.

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[105] Ibid., para 97. The Court also held that 'given that certain Member States of the Community do not have nuclear installations on their territory and that [...] the Community may lay down in their regard basic standards for emergency measures, the Community possesses competence in the field covered by Article 16(3) of the Convention'. See para 100.
[106] Ibid., para 91.
[107] Ibid., para 89.
[108] Ibid., para 93.
[109] Article 33 Euratom specifies that this can be done 'whether by legislation, regulation or administrative action.'

The Court adopted a similar reasoning when dealing with Article 18 [design and construction][110] and Article 19 [operation of nuclear installations] of the Convention.[111] It held that the measures required by those articles could be 'the subject of the provisions which the Member States lay down to ensure, in accordance with the first paragraph of Article 33 of the Euratom Treaty, compliance with the basic standards'.[112] The Court pointed out that the Commission has the competence to issue recommendations for harmonising such provisions.[113] The Court clarified that this competence had to be interpreted in the light of the considerations in the judgment on the Euratom's general competence in this field.[114] The competences had to be interpreted broadly, i.e., 'safety for nuclear installations' and 'radiation protection' should be considered as one single field.

If brief, the Court held that Article 33 Euratom was the legal basis for Convention Articles 14(i) [safety assessments], 18 [design and construction], and 19 [operation]. However, according to Article 33, the Commission can only issue

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[110] Article 18 reads: 'Each Contracting Party shall take the appropriate steps to ensure that: (i) the design and construction of a nuclear installation provides for several reliable levels and methods of protection (defense in depth) against the release of radioactive materials, with a view to preventing the occurrence of accidents and to mitigating their radiological consequences should they occur; (ii) the technologies incorporated in the design and construction of a nuclear installation are proven by experience or qualified by testing or analysis; (iii) the design of a nuclear installation allows for reliable, stable and easily manageable operation, with specific consideration of human factors and the man- machine interface'.

[111] Article 19 reads: 'Each Contracting Party shall take the appropriate steps to ensure that: (i) the initial authorization to operate a nuclear installation is based upon an appropriate safety analysis and a commissioning programme demonstrating that the installation, as constructed, is consistent with design and safety requirements; (ii) operational limits and conditions derived from the safety analysis, tests and operational experience are defined and revised as necessary for identifying safe boundaries for operation; (iii) operation, maintenance, inspection and testing of a nuclear installation are conducted in accordance with approved procedures; (iv) procedures are established for responding to anticipated operational occurrences and to accidents; (v) necessary engineering and technical support in all safety-related fields is available throughout the lifetime of a nuclear installation; (vi) incidents significant to safety are reported in a timely manner by the holder of the relevant licence to the regulatory body; (vii) programmes to collect and analyse operating experience are established, the results obtained and the conclusions drawn are acted upon and that existing mechanisms are used to share important experience with international bodies and with other operating organizations and regulatory bodies; (viii) the generation of radioactive waste resulting from the operation of a nuclear installation is kept to the minimum practicable for the process concerned, both in activity and in volume, and any necessary treatment and storage of spent fuel and waste directly related to the operation and on the same site as that of the nuclear installation take into consideration conditioning and disposal'.

[112] *Nuclear Safety* Case, para 105.

[113] Article 33(2) Euratom.

[114] See the *Nuclear Safety* Case, paras 75–83.

recommendations, and not binding measures. The Court therefore also had to address the question of whether the Convention can be implemented in other ways than by legislative measures.[115] It found that Article 4 of the Convention provides that the Convention obligations may be implemented not only by means of legislative and regulatory measures, but also by administrative measures and other steps.

The Court also decided that Article 17 of the Convention should have been included in the Declaration.[116] It states that the Contracting Parties shall take steps to ensure procedures for the establishment and implementation of the evaluation of the safety impact of a proposed nuclear installation for individuals, society, and the environment. The Court held that the siting of a nuclear installation, 'necessarily includes taking into account factors relating to radiation protection, such as the demographic characteristics of the site' and that 'it is apparent' that Article 17 related to those factors. The Court identified Article 37 Euratom as providing the Community with such competence. It stipulates that the Member States have to provide the Commission with general data relating to plans for the disposal of radioactive waste with potential transboundary impact.[117]

After having examined the Specific Competences in the area of Nuclear Safety, the Court concluded that the third paragraph of the Declaration must be annulled in so far as Articles 7, 14, 16(1) and 16(3), and 17 to 19 of the Convention were not referred to therein. This clarified that the Euratom has the competence to introduce a legislative framework for the safety of nuclear installations; assessment and verification of safety; emergency preparedness;

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[115] Ibid., paras 95 and 106.

[116] Article 17 of the Convention reads: 'Each Contracting Party shall take the appropriate steps to ensure that appropriate procedures are established and implemented: (i) for evaluating all relevant site-related factors likely to affect the safety of a nuclear installation for its projected lifetime; (ii) for evaluating the likely safety impact of a proposed nuclear installation on individuals, society and the environment; (iii) for re-evaluating as necessary all relevant factors referred to in sub-paragraphs (i) and (ii) so as to ensure the continued safety acceptability of the nuclear installation; (iv) for consulting Contracting Parties in the vicinity of a proposed nuclear installation, insofar as they are likely to be affected by that installation and, upon request providing the necessary information to such Contracting Parties, in order to enable them to evaluate and make their own assessment of the likely safety impact on their own territory of the nuclear installation'.

[117] *Nuclear Safety* Case, para 103.

siting; design and construction; and operation of nuclear installations.

5.2.3.3 Comments on the Case

Before examining the implications of this case, we need to understand how the Court reached its conclusions. The core of the Court's reasoning is its general considerations on competence in the field of nuclear safety. It interpreted the 'Health and Safety' provisions broadly in order to give them 'practical effect'. It also held that the 'development of scientific knowledge' requires an integrated approach (between 'radiation protection' and 'nuclear safety'). We shall now consider the bearing of these arguments.

Let us start with the 'practical effect' argument. The Court refers to some cases where it has adopted a 'practical effect reasoning' in relation to the 'Health and Safety' provisions. One of them is *Land de Sarre*. If the Court had not given Article 37 Euratom a broad interpretation in that case, that Treaty Article would have had little or no practical effect – it would have been a dead letter. But in the *Nuclear Safety* Case, the Court used the practical effect argument in order to broaden the reading of the 'Health and Safety' provisions to include another field – nuclear safety for installations. It has never been the case that the 'Health and Safety' provisions have had little or *no* practical effect. To the contrary, as described in Chapter 4 'Radiation Protection', the Euratom has adopted quite a significant body of law on 'radiation protection' on the basis of these provisions.

In support of its broad reading, the Court also referred to the 'development of scientific knowledge'. It referred to the fact that the Euratom BSS Directive stated that scientific development had to be taken into account and also that the AG's Opinion had described this development in detail. But the development of 'scientific knowledge' referred to in the Directive and in the AG's Opinion is not quite the same. The Directive refers to the 'development of scientific knowledge' in relation to setting the standards in the area of 'radiation protection', e.g., 'maximum exposure' and 'dose limits'.[118] This does not mean that the Directive

[118] Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation, OJ L 159, 29/06/1996, p. 1 (now replaced by Council Directive 2013/59/Euratom of 5 December 2013, OJ 2014 No. L13, 17 January 2014, p. 1). The Directive

on 'radiation protection' extends to 'nuclear safety'; it does not embrace an integrated approach. The Directive merely says that 'scientific knowledge' has to be taken into account when setting the standards. In fact, the legislator has always taken the development of scientific knowledge into account. This is nothing new; for example, the first revision of the Euratom BSS Directive from 1959, states: 'Whereas the Directives laying down the basic standards, […] must be adjusted *in accordance with the most recent scientific data'*.[119] Similar formulations are found in all the amending directives.[120] The references to 'scientific knowledge' all concern adjustments to the 'dose limits' and 'maximum exposure'. In other words, this is about 'radiation protection'. Thus, the Euratom BSS Directive does not support a broad reading of the Euratom competences. More importantly, competences cannot be inferred from secondary legislation.

The Court also referred to the AG's description of the development of scientific knowledge. The AG describes how international bodies increasingly deal with 'radiation protection' and 'nuclear safety of installations' in an integrated manner. He refers to principles and rules established by the ICRP, which 'have in common that they concern control over sources of harmful radiation to a much

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Preamble states that the scientific development is expressed in the ICRP recommendations, in particular: Recommendation No 60.

[119] Euratom Council Directive amending Annexes 1 and 3 to the Directives laying down the basic standards for health protection, OJ 1962 No. 57, 9 July 1962, p. 1633.

[120] Council Directive 76/579/Euratom of 1 June 1976 laying down the revised basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation OJ 1976 No. L187, 12 July 1976, p. 1 provides: 'Whereas the usefulness of a general review of these Directives has become progressively apparent in the light of *increasing scientific knowledge* of radiation protection and as a result of the practical experience of applying these Directives in national laws.' See also Council Directive 79/343/Euratom of 27 March 1979 amending Directive 76/579/Euratom laying down the revised basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation, OJ 1979 No. L83, 3 April 1979, p. 18, which emphasises the importance of 'the latest scientific developments'. It also emphasises that the recommendations from the ICRP 'constitute an important scientific background for the Euratom safety standards' and that the most recent ICRP recommendations had 'modified certain fundamental scientific concepts in the field of radiological protection.' Note also Council Directive 80/836/Euratom of 15 July 1980 amending the Directives laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation, OJ 1980 No. L246, 17 September 1980, p. 1, which states: 'Whereas the usefulness of some review of these Directives has become apparent in the light of the development of scientific knowledge concerning radiation protection'. A similar formulation is found in Council Directive 84/467/Euratom of 3 September 1984 amending Directive 80/836/Euratom as regards the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation, OJ 1984 No. L265, 5 October 1984, p. 4.

greater extent than mere dose limits would do'.[121] The AG argues that as the Euratom BSS Directive embrace principles recommended by the ICRP, this is an indication that 'radiation protection' and 'nuclear safety' are integrated areas also under the Euratom. Indeed, the Directive includes the ALARA principle (stating that 'all exposures shall be kept as low as reasonably achievable'),[122] but again, this does not amount to an 'integrated approach'.

According to the AG, another indication of the integrated approach is the fact that the IAEA's most important publication,[123] the 'Safety Fundamentals', deals with the nuclear safety of nuclear installations and radiation protection in one single publication. These areas were previously dealt with under separate publications. It should be pointed out that these publications are not binding to the IAEA Member States. The AG further points out that the IAEA has also taken an integrated approach in organisational terms; the IAEA department of Nuclear Safety now coordinates the Nuclear Safety Division, the Radiation Division, and the Waste Safety Division. However, this choice might be based on practical considerations rather than 'development in scientific knowledge'.

In brief, the claim here is that the Court's arguments do not support this broad reading of the Euratom Treaty. But the implications are far-reaching. The *Nuclear Safety* Case is to be regarded as a landmark case in the sense that it opened up a field where it was believed that the Euratom only had limited competence. One might even argue that the case 'saved' the very existence of the Euratom Treaty; it 'provided' the Treaty with a new rationale at a time when the 'original' rationale (i.e., promotion of the nuclear industry) seemed outdated.

As previously explained, the Council and the Commission had disagreed on the scope of the Euratom's competence in the field of emergency preparedness. Due to this disagreement, the Euratom had not acceded to the two Emergency Conventions. The *Nuclear Safety* Case clarified that the Euratom has competence in the field of emergency preparedness (a competence which the Euratom,

[121] Opinion of AG Jacobs, para 130.
[122] The Directive also points out that 'a system of radiation protection for practices should continue to be based on the principles of justification of exposure, optimization of protection and dose limitation'.
[123] Opinion of AG Jacobs, para 131.

indeed, to some extent already exercised) and that there was no longer an obstacle to accede to the two Emergency Conventions.

The case is not only about the Euratom's external competences, but also about its internal competences. In fact, the Court not only clarified the extent of the Euratom's external competences, but also the scope of its internal competences. In practice, the case was a 'judicial preview' of internal legislation in this field (although this was something the Court explicitly denied).

5.3 Substance

This section maps out the Euratom's substantive measures in the nuclear safety field. We examine them through the lens of three major events: the Chernobyl accident, the fall of the Soviet Union, and the EU enlargement. Following each event, the Euratom adopted a new set of measures that aimed to respond to new realities. This development must also be seen in light of the adoption of the international conventions. The existence of international instruments was an important impetus for the Euratom to set up its own legislation: if the international community could agree on measures in the field, why not the Euratom?

As explained, for many years, it was believed that a legal basis for nuclear safety did not exist. This did not prevent the Euratom and the EC from adopting international measures in the field. We first examine the emergency measures that were set up as a response to the Chernobyl accident and then the measures on financial assistance to third countries following the collapse of the Soviet Union. After that, we shall discuss nuclear safety as a part of the EU's enlargement policy. Finally, we examine the 'nuclear package', which was made possible only after the *Nuclear Safety* Case.

5.3.1 Emergency Measures

The Chernobyl disaster in 1986 was the 'seismic' event for nuclear safety legislation worldwide. It was also the main impetus for Euratom legislation on

nuclear safety. In the period following the accident, emergency legislation came in focus. As explained, the international community set up two conventions on emergency preparedness (the 'Early Notification Convention' and the 'Assistance Convention'). The Euratom did not accede until 2006, but in the meantime it adopted its own instruments. We shall look first at the measures on emergency information and then at the measures on emergency assistance.

5.3.1.1 Emergency Information

The need for early exchange of information was foreseen already in the Euratom BSS Directive from 1980. It obliged the Member States to notify any accident involving exposure of the population to the Commission and to neighbouring Member States.[124] As a response to the Chernobyl Accident, the Council established a more robust alert system: the 'ECURIE' system.[125] In the event of an accident, the Commission collects and transmits information to the Member States. The Commission is the hub of information through the Joint Research Centre.[126] The Member States must notify the Commission and Member States potentially affected when they intend to take measures to protect the general public.[127] The ECURIE system aims to ensure that Member States are 'promptly informed in the event of a radiological emergency in order to provide that the uniform standards for protection of the population as is laid down in the Directives made pursuant to Title Two, Chapter III, of the Treaty are applied

[124] Article 45(5) of Council Directive 80/836/Euratom of 15 July 1980 amending the Directives laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation, OJ 1980 No. L246, 17 September 1980, p. 1.
[125] See Council Decision 87/600/Euratom of 14 December 1987 on Community arrangements for the early exchange of information in the event of a radiological emergency, OJ 1987 No. L371, 30 December 1987, p. 76. ECURIE stands for 'The European Community Urgent Radiological Information Exchange'.
[126] On the Joint Research Centre, see Chapter 2 'Nuclear Industrial Development'.
[127] The ECURIE system has two message types: an 'ECURIE Alert message', which is an emergency notification under Council Decision 87/600/Euratom; and an 'ECURIE Information message', which is a voluntary notification of 'smaller incidents'. In 2001, the Commission introduced the possibility to send the latter type of information. More than 20 such messages have been sent since then. See Parliamentary question, Answer given by Mr Piebalgs on behalf of the Commission, 30 July 2008, OJ 2009 No. C999, 1 January 2009.
See also the Commission's ECURIE website, http://rem.jrc.ec.europa.eu/RemWeb/activities/Ecurie.aspx. For an account of how the ECURIE system works in practice, see Sanna Zandén Kjellén, 'Rapid Alerts for Crisis at the EU Level', in Stefan Olsson ed. *Crisis Management in the European Union: Cooperation in the Face of Emergencies* (Berlin: Springer, 2009), 65–6.

throughout the Community'.[128] Thus, there is a close link to other Directives adopted on the basis of the 'Health and Safety' provisions, in the field of 'radiation protection' (the ECURIE system takes Article 31 Euratom as its legal basis). In 2003, the Euratom entered an agreement with some third countries, which extended the ECURIE system's geographical scope to neighbouring countries and candidate states.[129] The agreement now has effect between the Euratom and Switzerland and Croatia.[130]

The Council adopted the ECURIE system at the same time as it approved the Euratom's accession to the 'Early Notification Convention'. But, as explained, the Euratom did not accede until many years later.[131] For a long time, the ECURIE system therefore existed as an autonomous, regional alert system. As all the EU Member States had acceded to the Convention, the regional ECURIE system and the international IAEA system had to be linked. There could otherwise be a risk that the Member States would receive information from two different sources, and this could be problematic. Consequently, in 1991, an informal cooperation was established between the ECURIE and the IAEA system.[132] Under this arrangement, the system that received the information had to inform the other

[128] See the Preamble of Council Decision 87/600/Euratom of 14 December 1987 on Community arrangements for the early exchange of information in the event of a radiological emergency, OJ 1987 No. L371, 30 December 1987, p. 76.
[129] Agreement between the Euratom and non-member States of the European Union on the participation of the latter in the Community arrangements for the early exchange of information in the event of radiological emergency (Ecurie) OJ 2003 No. C102, 29 April 2003 p. 2. The Countries invited to become a party were Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, the Slovak Republic, Slovenia, Switzerland, and Turkey. The agreement ceased to have individual effect for countries that later became EU Member States (Article 11(2) of the ECURIE agreement). The agreement replaced a bilateral agreement between the Euratom and Switzerland. See agreement in the form of letters exchanged between the Euratom and Switzerland concerning the inclusion of the latter in the Ecurie arrangements, OJ 1995 No. C335, 13 December 1995, p. 4.
[130] Turkey has signed but not yet ratified the agreement. See the Turkish Atomic Energy Authorities website: http://www.taek.gov.tr/eng/international/agreements.html.
[131] The Preamble of Council Decision 87/600/Euratom of 14 December 1987 expressed the Euratom's intention to accede to the Convention: 'In furtherance of international cooperation, the Community will participate in the IAEA Convention on Early Notification of a Nuclear Accident'.
[132] The basis for this cooperation was a letter from the Director-General for External Relations to the Director-General of the IAEA. See Proposal for a Council Decision approving the conclusion of the Convention on Early Notification of a Nuclear Accident, COM(2004) 560 final.

system.[133] It shall also be noted that the Commission undertook to apply the Early Notification Convention provisions pending the Euratom's accession.[134]

In addition to the ECURIE system, the Council adopted a Euratom Directive on informing the general public about health protection measures to be applied and steps to be taken in the event of a radiological emergency.[135] Unlike the ECURIE system, which requires Member States to inform the Commission and other Member States, this Directive set up obligations to inform the general public *within* the Member States.[136] The Directive provided that the population likely to be affected by the radiological emergency shall be given in advance information on planned health protection measures.[137] Closely related is also the Council Regulation adopted under the Euratom Treaty, which lays down maximum

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[133] The ECURIE States only have to alert one of the systems – either the ECURIE system or the IAEA system. The States are required to alert the ECURIE system even if there is no risk that other countries could be affected by a radiological release. Under the IAEA system, States are only required to alert in case another country could be affected.

[134] In conformity with Article 7 of the Early Notification Convention, the Commission designated the competent authorities and points of contact.

[135] Council Directive 89/618/Euratom of 27 November 1989 on informing the general public about health protection measures to be applied and steps to be taken in the event of a radiological emergency OJ 1989 No. L357, 7 December 1989, p. 31. This Directive has been repealed and its provisions have been transposed to Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, OJ 2014 No. L13, 17 January 2014, p. 1.

[136] There are a few cases decided by the ECJ on the scope of the Member States' obligations under this Directive: Case C-65/04, *Commission* v. *United Kingdom* [2006] ECR I-02239; Case C-177/03, *Commission* v. *French Republic* [2004] ECR I-11671; and Case C-135/94, *Commission* v. *Italian Republic* [1995] ECR I-1805. In these cases, the Commission brought an action under Article 141 Euratom (Article 141 Euratom is now repealed). It provided for an infringement procedure. It was identical to Article 226 EC. The Lisbon Treaty replaced it with a reference in Article 106a Euratom to Article 258 TFEU). In Case C-135/94, Italy argued that the letter of formal notice was not a valid institution of the infringement procedure because the Commission had stated that it was acting in accordance with Article 169 EEC, rather than Article 141 Euratom. The Court held that those provisions are identical in terms and that the Commission had made good its failure to cite the Euratom Treaty provisions in the reasoned opinion. It also held that the omission of any reference to the relevant Euratom Treaty provisions in the letter of formal notice did not adversely affect Italy's right of defence. Only Case C-65/04 ('the *Gibraltar Submarine* Case') is interesting from a substantive point of view. The Court decided that in the case of the repair of a nuclear-powered submarine, the Directive did not require the UK to inform the public about health protection measures.

[137] See Article 1 of Directive 89/618/Euratom. The Preamble pointed out that the Directive would 'supplement' the information made available to the public included in two directives based on the EEC Treaty: Article 6(2) of Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, OJ 1985 No. L175, 5 July 1985, p. 40 (repealed by Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment, OJ 2012 No. L26, 28 January 2012, p. 1); and Article 8 (1) of Council Directive 82/501/EEC of 24 June 1982 on the major accident hazards of certain industrial activities, as amended by Directive 88/610/EEC, OJ 1988 No. L336, 7 December 1988, p. 14.

permitted levels of radioactive contamination of foodstuffs and of feedingstuffs following a nuclear accident or any other case of radiological emergency.[138] There also seem to be some overlaps with the Rapid Alert System for Food and Feed (RASFF), adopted under the TFEU.[139] This system can also be activated in the case of a radiological emergency.

5.3.1.2 Emergency Assistance

As discussed, the result of the institutional disagreement on the Euratom's competence in the area of emergency assistance was that the Euratom did not accede to the Assistance Convention until 2006. But also in this area there were some 'internal' instruments in place before accession. In 2001, the Council decided to establish a Monitoring and Information Centre (MIC). The purpose is to facilitate cooperation in civil protection assistance.[140] In 2007, a revised mechanism was adopted as a response to the experience from the 2004 Tsunami disaster in the Indian Ocean.[141] It allows for the development of a European rapid response capability. A financial instrument was also adopted.[142] Under the MIC, financial assistance may be given to contribute to improving the effectiveness of response to major emergencies, and enhancing preventive and

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[138] Council Regulation (Euratom) No 3954/87 of 22 December 1987 laying down maximum permitted levels of radioactive contamination of foodstuffs and of feedingstuffs following a nuclear accident or any other case of radiological emergency, OJ 1987 No. L371, 30 December 1987, p. 11. See the discussion in Chapter 4 'Radiation Protection'.

[139] Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety, OJ 2002 No. L31, 1 February 2002, p. 1.

[140] Council Decision 2001/792/EC, Euratom of 23 October 2001 establishing a Community mechanism to facilitate reinforced cooperation in civil protection assistance interventions, OJ 2001 No. L297, 15 November 2001, p. 7. See also Commission Decision 2004/277/EC, Euratom of 29 December 2003 laying down rules for the implementation of Council Decision 2001/792/EC, Euratom establishing a Community mechanism to facilitate reinforced cooperation in civil protection assistance interventions, OJ 2003 No. L87.

[141] See Council Decision 2007/779/EC, Euratom of 8 November 2007 establishing a Community Civil Protection Mechanism (recast) OJ 2007 No. L314, 1 December 2007, p. 9. For an analysis, see Marise Cremona, 'The EU and Global Emergencies: Competence and Instruments', in Antonis Antoniadis, Robert Schütze and Eleanor Spaventa (eds.), *The European Union and Global Emergencies: A Law and policy analysis* (Oxford: Hart Publishing, 2011), 11–31 at 21.

[142] Council Decision 2007/162/EC, Euratom of 5 March 2007 establishing a Civil Protection Financial Instrument, OJ 2007 No. L71, 10 March 2007, p. 9. See also Commission Decision 2007/606/EC, Euratom of 8 August 2007 laying down rules for the implementation of the provisions on transport in Council Decision 2007/162/EC, Euratom establishing a Civil Protection Financial Instrument, OJ 2007 No. L241, 14 September 2007, p. 17.

preparedness measures. The Member States may have recourse to the MIC irrespective of the type of emergency involved. Therefore, the MIC takes both the EC Treaty and the Euratom Treaty as its legal basis. As an explicit legal basis could not be found in either of the treaties, the legislator had to take recourse to Article 308 EC and the corresponding Article 203 Euratom.

We must also say a few words about the novelties introduced by the Lisbon Treaty in the area of civil protection. The 'solidarity clause' in Article 222 TFEU, imposes a duty on the Union and the Member States to 'act jointly in a spirit of solidarity if a Member State is the object of a terrorist attack or the victim of a natural or man-made disaster'. It also provides that '[t]he Union shall mobilise all the instruments at its disposal […] to assist a Member State in its territory, at the request of its political authorities, in the event of a terrorist attack' and 'assist a Member State in its territory, at the request of its political authorities, in the event of a natural or man-made disaster'. We should also note Article 196 TFEU (civil protection), which stipulates that the '[t]he Union shall encourage cooperation between Member States in order to improve the effectiveness of systems for preventing and protecting against natural or man-made disasters'). These provisions could possibly be applied in the area of emergency assistance on nuclear incidents.[143] Another provision that could be applied in the event of a nuclear accident is Article 122 TFEU, which provides that the Council may decide on financial assistance to a Member State, which is 'seriously threatened with severe difficulties caused by natural disasters or exceptional occurrences beyond its control'. The next section deals with financial assistance of a 'non-emergency character'.

5.3.2 Financial and Technical Assistance

The Chernobyl accident emphasised that nuclear safety was not satisfactory in some of the Central and Eastern European countries. After the fall of the Soviet Union in 1991, it became possible to do something about this. The Euratom's focus now shifted from emergency measures to preventive measures. As many of

[143] For a discussion on the possible use of these provisions, see e.g., Theodore Konstadinides, 'Civil Protection Cooperation in EU Law: Is There Room for Solidarity to Wriggle Past?' (2013) 19 *European Law Journal* 267–82.

the Commonwealth Independent States (CIS) did not have the financial resources or capabilities to upgrade their nuclear power plants, the Euratom started to provide financial assistance. We shall discuss two types of measures: 'Financial Assistance to third countries' and 'Euratom loans'.

5.3.2.1 Financial and Technical Assistance to Third Countries

The Euratom has contributed to many international projects in the field of nuclear safety. One example is the Nuclear Safety Account, which was established at the G7 summit in 1992 under the European Bank for Reconstruction and Development. The fund provides financial assistance to nuclear safety projects in Central and Eastern Europe, including projects dealing with the legacy of the Chernobyl accident (e.g., the decommissioning of the three undamaged units).[144] In 1994, the Council adopted a Decision on the conclusion of an agreement on the contribution to the fund.[145] The Decision's preamble set up some conditions for funding: the recipient countries must respect the principal international safety agreements, subscribe to the Vienna and Paris international conventions on nuclear liability, and establish appropriate rules governing insurance. They must also have independent safety authorities, plan to replace their most unsafe nuclear power stations, draw up energy-saving measures, intend to phase in genuine energy pricing, and have an overall energy programme in preparation. This decision was adopted on the basis of Article 235 EEC (now Article 352 TFEU).

Another example is the 'Chernobyl Shelter Fund', which was established at the European Bank for Reconstruction and Development. It implements the 'Shelter

[144] Three units at the Chernobyl site were undamaged. After the accident, the Ukraine put them back into operation. This raised the fear of another accident because the units were of poor design. In 1995, the G7, the European Commission, and the Ukraine agreed on the closure of these units. The closing down of a nuclear power plant permanently is a very long and costly process.

[145] Council Decision 94/479/EC of 29 March 1994 on the conclusion of an Agreement in the form of Exchanges of Letters between the European Community and the European Bank for Reconstruction and Development on the contribution of the Community to the Nuclear Safety Account, OJ 1994 No. L200, 3 August 1994, p. 33. See also Agreement in the form of exchanges of letters between the European Community and the European Bank for Reconstruction and Development on the contribution of the Community to the nuclear safety account, OJ 1994 No. L200, 3 August 1994, p. 35.

Implementation Plan', which was launched by the EU, G7, and Ukraine in 1997. The Plan aims at constructing a safe shelter over the damaged reactor.[146] The EU is a contributor to the Fund.[147] The Council Decision on Community contribution takes both the EC and the Euratom as its legal basis.

In 1991, the Euratom set up a nuclear programme under the TACIS,[148] the general technical assistance programme to the Commonwealth of Independent States (CIS). The programme focused on design safety, on-site assistance, regulatory and licensing activities, and nuclear waste management. It also contributed to international initiatives dealing with the Chernobyl accident. When the programme ended in 2006, four Council Regulations had been adopted.[149] All of them they took a joint legal basis in Articles 203 Euratom and 235 EEC (now Article 352 TFEU). In parallel to the Nuclear Safety Programme under the TACIS, the EU set up 'The Programme of Community aid to the countries of Central and Eastern Europe' ('PHARE'), a nuclear safety programme for candidate countries. In 2007, this was replaced with the Instrument for Pre-Accession Assistance (IPA). In 2007, the EU widened the geographical scope of its financial assistance. The TACIS programme, which only covered CIS states,

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[146] The shelter replaces the temporary and increasingly unstable 'sarcophagus', which was constructed to enclose the damaged reactor to protect the environment and the public from radioactive contamination.

[147] See Council Decision 98/381/EC, Euratom of 5 June 1998 concerning the Community contribution to the European Bank for Reconstruction and Development for the Chernobyl Shelter Fund, OJ 1998 No. L171, 17 June 1998, p. 31; and Council Decision 2001/824/EC, Euratom of 16 November 2001 on a further contribution of the European Community to the European Bank for Reconstruction and Development for the Chernobyl Shelter Fund, OJ 2001 No. L308, 27 November 2001, p. 25.

[148] Technical Assistance to the Commonwealth Independents States. The TACIS programme ended in 2006. The Commission had then allocated €1.3 billion to nuclear safety projects. Most of the projects took place in Russia and the Ukraine.

[149] Council Regulation (EC, Euratom) No 99/2000 of 29 December 1999 concerning the provision of assistance to the partner States in Eastern Europe and Central Asia, OJ 2000 No. L12, 18 January 2000, p. 1 [repealed]; Council Regulation (Euratom, EC) No 1279/96 of 25 June 1996 concerning the provision of assistance to economic reform and recovery in the New Independent States and Mongolia, OJ 1996 No. L165, 4 July 1996, p. 1; Council Regulation (Euratom, EEC) No 2053/93 of 19 July 1993 concerning the provision of technical assistance to economic reform and recovery in the independent States of the former Soviet Union and Mongolia, OJ 1993 No. L187, 29 July 1993, p. 1; and Council Regulation (EEC, Euratom) No 2157/91 of 15 July 1991 concerning the provision of technical assistance to economic reform and recovery in the Union of Soviet Socialist Republics, OJ 1991 No. L201, 24 July 1991, p. 2. See also Case C-417/93, *European Parliament v. Council* [1995] ECR I-1185. In this case, the Parliament challenged the adoption of the Council Regulation No 2157/91 on the ground that the Council had set aside the duty to consult it.

was then replaced with the Instrument for Nuclear Safety Cooperation (INSC),[150] which covers all third states. The Euratom also cooperates with the IAEA under this instrument. This instrument takes only Article 203 Euratom as its legal basis.

We shall finally note that the Euratom has concluded a framework agreement on a multilateral nuclear environmental programme in the Russian Federation on financial assistance.[151]Through these instruments discussed above, the Euratom can play a role in the EU's neighbourhood policy.[152]

5.3.2.2 Euratom Loans

In 1977, the Council established the Euratom loan facility.[153] It was established as a response to the oil crises in the 1970s, which had resulted in rising oil prices. There were also concerns that Europe was too dependent on external energy sources. The idea was that nuclear energy could 'reduce the Community's excessive dependence on external sources of energy and thus improve the terms on which energy is imported'. The Decision's preamble states:

> Under present technical and economic conditions, the use of nuclear energy for the production of electricity is economically advantageous and more satisfactory than the use of petroleum products […]. The additional investment required for nuclear plant by comparison with conventional plant, combined with the costs arising out of the increase in the price of petroleum

[150] Council Regulation (Euratom) No 237/2014 of 13 December 2013 establishing an Instrument for Nuclear Safety Cooperation, OJ 2014 No. L77, 15 March 2014, p. 109. This instrument replaced Council Regulation (Euratom) No 300/2007 of 19 February 2007 establishing an Instrument for Nuclear Safety Cooperation, OJ 2007 No. L81, 22 March 2007, p. 1. The INSC had a budget of 524 million euros for the period 2007 to 2013.

[151] Commission Decision 2006/890/Euratom of 4 December 2006 concerning the conclusion on behalf of the European Atomic Energy Community of a Framework Agreement on a Multilateral Nuclear Environmental Programme in the Russian Federation and of the Protocol on Claims, Legal Proceedings and Indemnification to the Framework Agreement on a Multilateral Nuclear Environmental Programme in the Russian Federation, OJ 2006 No. L343, 8 December 2006, p. 85.

[152] For a discussion on this theme, see Pamela Barnes, 'Security of Energy Supply in the New Europe: A Role for the European Atomic Energy Community in the European Union's Neighbourhood Policy?' (2008) 4 *Journal of Contemporary European Research* 107–29.

[153] Council Decision 77/270/Euratom of 29 March 1977 empowering the Commission to issue Euratom loans for the purpose of contributing to the financing of nuclear power stations, OJ 1977 No. L88, 6 April 1977, p. 9. The Commission had submitted such a proposal already in 1971, but it never resulted in legislation. See Projet de décision du Conseil autorisant la réalisation d'emprunts en vue d'une, contribution de la Communauté au financement des centrales nucléaires depuissance, OJ 1971 No. C106, 23 October 1971. The Commission submitted a new proposal in 1975: Draft Council Decision empowering the Commission to issue Euratom loans with a view to a Community contribution towards the financing of nuclear power stations, OJ 1975 No. C35, 14 February 1975, p. 6.

products which affect the operating costs of existing conventional power stations, means that electricity producers are being forced to borrow more.

The Decision to establish the loan facility was adopted on the basis of Articles 2c, 172.4 and 203 Euratom. Article 2c states that it is the task of Euratom to facilitate investments. Article 172.4 provides that 'loans for the financing of research or investment shall be raised on terms fixed by the Council'. This legal basis was not seen as sufficient; recourse to the Euratom's 'flexibility clause' in Article 203 was necessary (cf. Article 352 TFEU).[154]

The Council Decision establishing the loan facility authorises the Commission to issue loans. The Council initially empowered the Commission to issue a tranche of 500 million European units of account.[155] This ceiling has been raised by various amendments.[156] During the first 10 years, the loan facility financed 90 projects in France, Italy, Germany, Belgium, and the UK.[157] They include new nuclear power plants, enrichment plants, and even the reprocessing plant in the UK.[158] No such loans have been issued since 1987,[159] not only because of

[154] The preamble of the Decision stated: '[I]f a contribution is to be made to the financing of nuclear power stations, arrangements must be made for borrowing and lending; whereas such action appears to be necessary if the objective set out in Article 2(c) of the Treaty is to be attained, although the Treaty does not provide for the powers necessary for that purpose'.
[155] This was specified in a separate Council decision. See Council Decision 77/271/Euratom of 29 March 1977 on the implementation of Decision 77/270/Euratom empowering the Commission to issue Euratom loans for the purpose of contributing to the financing of nuclear power stations, OJ 1977 No. L88, 6 April 1977, p. 11.
[156] Council Decision 80/29/Euratom of 20 December 1979 amending Decision 77/271/Euratom on the implementation of Decision 77/270/Euratom empowering the Commission to contract Euratom loans for the purpose of contributing to the financing of nuclear power stations, OJ 1980 No. L12, 17 January 1980, p. 28; Council Decision 82/170/Euratom of 15 March 1982 amending Decision 77/271/Euratom as regards the total amount of Euratom loans which the Commission is empowered to contract for the purpose of contributing to the financing of nuclear power stations, OJ 1982 No. L78, 24 March 1982, p. 21; Council Decision 85/537/Euratom of 5 December 1985 amending Decision 77/271/Euratom as regards the total amount of Euratom loans which the Commission is empowered to contract for the purpose of contributing to the financing of nuclear power stations, OJ 1985 No. L334, 12 December 1985, p. 23; Council Decision 90/212/Euratom of 23 April 1990 amending Decision 77/271/Euratom on the implementation of Decision 77/270/Euratom empowering the Commission to issue Euratom loans for the purpose of contributing to the financing of nuclear power stations, OJ 1990 No. L112, 3 May 1990, p. 26.
[157] Second report on borrowing and lending activities of the European Atomic Energy Community (Euratom), Information Memo P-14/80, March 1980.
[158] A reprocessing plant separates uranium and plutonium, which can both be reused. It creates radioactive waste.
[159] All loans had been repaid by the year 2000.

concerns about safety after the Chernobyl accident, but also because nuclear investments had already peaked.

In 1994, the Council expanded the material and geographical scope of the Euratom loan facility.[160] The new loan facility (hereinafter referred to as 'safety upgrade loans') covers projects designed to improve the safety and efficiency of nuclear facilities in 'certain non-member countries'. The countries concerned are listed in an annex to the Decision, which has since been updated several times. All of them were in Central and Eastern Europe and the Commonwealth of Independent States (CIS).[161] We shall add that the Member States are only eligible to investments for new builds, so-called 'investment loans', but not 'safety upgrade loans'. In 2002, the Commission issued two proposals that would mean Member States were also eligible for loans on safety upgrades.[162] The Commission also suggested increasing the borrowing ceiling. The Council has not decided on these proposals.

In order to be eligible for 'safety upgrade loans', projects have to meet certain requirements: they have to relate to nuclear installations where modification cannot be justified in technical or economic terms; they must have received authorisation at national level, and a favourable opinion from the Commission in

[160] Council Decision 94/179/Euratom of 21 March 1994 amending Decision 77/270/Euratom, to authorise the Commission to contract Euratom borrowings in order to contribute to the financing required for improving the degree of safety and efficiency of nuclear power stations in certain non-member countries, OJ 1994 No. L84, 29 March 1994, p. 41. See also Proposal for a Council Decision amending Decision 77/270/Euratom, to authorise the Commission to contract Euratom borrowings in order to contribute to the financing required for improving the degree of efficiency and safety of nuclear power stations in certain non-Member countries, COM(1992) 467 final, OJ 1993 No. C22, 26 January 1993, p. 11.

[161] Currently, Russia, Armenia and Ukraine are eligible for this type of loan. The Commission has so far granted three such loans for projects in the Ukraine, Bulgaria, and Romania: 223.5 million euros were provided for safety improvements of Kozloduy 5 and 6 (Bulgaria) in 2000; 212.5 million euros for unit 2 at Cernavoda (Romania) in 2004; and 61.3 million euros for Khmelnitsky 2 and Rovno 4 units (the Ukraine) in 2004. See European Commission, Directorate-General Economic and Financial Affairs, Ex-Post Evaluation of the Euratom Loan Facility Framework Contract: BUDG 06/PO/01 LOT No 3 - ABAC 101908 Lot 3 – Provision of External Evaluation Studies of an Interim and Ex-post Nature Specific Contract: ECFIN/R/3/2010/021, Final Report, 3rd June 2011.

[162] See Proposal for a Council Decision amending Decision 77/270/Euratom empowering the Commission to issue Euratom loans for the purpose of contributing to the financing of nuclear power stations, COM(2002) 456 final, OJ 2003, No. C45E, 25 February 2003, p. 194; and Proposal for a Council Decision amending Decision 77/271/Euratom on the implementation of Decision 77/270/Euratom empowering the Commission to issue Euratom loans for the purpose of contributing to the financing of nuclear power stations, COM(2002) 457 final, OJ 2003 No. C45E, 25 February 2003, p. 201.

technical or economic terms.[163] There are other requirements for 'investment loans' (i.e., projects in the Member States).[164] Investment projects must have received a positive opinion from the Commission under Article 41 Euratom and received authorisation at national level, i.e., from authorities in the Member States.[165]

The loans are funded on the financial market; they are not disbursed from the EU's budget. The repayments, however, are guaranteed by the EU budget. The Commission is empowered to raise funds through debt capital markets, either by issuing bonds or promissory notes. Every outgoing payment is matched by an identical inflow from the beneficiary of the loan. The Euratom Loan Facility can finance up to 50% for third countries (i.e., safety upgrade loans) and up to 20% of the total costs of the projects for Member States (i.e., investment loans). This means that complementary financial sources are necessary for both types of loans.[166]

5.3.3 Nuclear Safety as Enlargement Policy

Nuclear safety was a central issue at the 2004 and 2007 enlargement to Central and Eastern Europe. The new Member States were operating Soviet-designed reactors, and they were not regarded safe. Although the EU did not yet have its

[163] Article 1 of the Decision.
[164] The Conditions for investment loans are found in 'Guidelines relating to the financing required for improving the safety and efficiency of nuclear power stations in certain non-member countries', Council document 5311/94, of 8 March 1994.
[165] In 2007, Bulgaria became the first Member State since 1987 to be eligible for a loan for a new reactor unit.
[166] The Member States can arrange some co-financing by the European Investment Bank (EIB) (the EU Member States are the members of the European Investment Bank). The EIB has lent 6.6 billion euros to nuclear investment projects. See EIB and Financing of Nuclear Energy, Briefing Note, Luxembourg, 19 July 2007. The EIB's task is 'to contribute, by having recourse to the capital market and utilising its own resources, to the balanced and steady development of the internal market in the interest of the Union' (Articles 308 to 309 TFEU). The EIB carries out economic, financial, and technical appraisals of projects. It ensures that they are fully consistent with EU and national law and policies. The EIB also gives recommendations to the Commission on projects in certain non-member countries. The cooperation between the Euratom and the EIB is regulated by an agreement from 1977 (there is also an agreement from 1994, renewed in 2000). Non-member states can arrange co-financing by the European Bank for Reconstruction and Development, which helps countries in the region to become open, market economies. It was established in 1991 and it is owned by owned by 64 countries, the European Union and the European Investment Bank.

own 'internal' nuclear safety legislation, it could use its leverage to improve nuclear safety in the Candidate States.

The 1999 Cologne Council requested that the Commission examines the nuclear safety in the Candidate States. An evaluation methodology was developed, based on the Nuclear Safety Convention and on identified 'common principles and opinions of the Union'.[167] The institutions noted that there was a 'high degree of convergence of technical and organisational requirements in the Member States'. This became the benchmark for the Candidate States. Following the evaluation, which was carried out in 2001, the Commission drew up individual recommendations to the Candidate States. The Candidate States were requested to formally accept the recommendations and to indicate an implementation timetable. The Commission and the Council concluded that reactors in some Candidate States (Bulgaria, Lithuania and Slovakia) had to be decommissioned and closed; they could not be improved to a reasonable cost.[168] Some reactors only had to be improved. These were not mere recommendations; they were conditions for EU Membership.[169]

In a Guide on how to implement the acquis,[170] the Commission notes that despite the fact that nuclear safety is not part of the acquis, a nuclear safety authority is 'necessary and exists in Member States'. It then describes how such an authority

[167] Commission Communication, Nuclear safety in the European Union, COM(2002) 605 final.
[168] Kozloduy 1-4 in Bulgaria, Ignalina 1-2 in Lithuania and Bohunice 1 and 2 in Slovakia. Lithuania had reactors that were of the same type that had caused the Chernobyl accident (a 'RBMK-type water-cooled graphite moderated reactor'). There are still 11 reactors of this type in operation, all of which are situated in Russia.
[169] See Protocol No 4 on the Ignalina Nuclear power Plant in Lithuania and Protocol No 9 on Unit 1 and Unit 2 of the Bohunice V1 Nuclear Power Plant in Slovakia of the Treaty between [the EU Member States] and the Czech Republic, the Republic of Estonia, the Republic of Cyprus, the Republic of Latvia, the Republic of Lithuania, the Republic of Hungary, the Republic of Malta, the Republic of Poland, the Republic of Slovenia, the Slovak Republic, concerning the accession of the Czech Republic, the Republic of Estonia, the Republic of Cyprus, the Republic of Latvia, the Republic of Lithuania, the Republic of Hungary, the Republic of Malta, the Republic of Poland, the Republic of Slovenia and the Slovak Republic to the European Union, OJ 2003 No. L236, 23 September 2003, p. 17. See also Article 30 of the Treaty between [the EU Member States] and the Republic of Bulgaria and Romania, concerning the accession of the Republic of Bulgaria and Romania to the European Union, OJ 2005 No. L157, 21 June 2005, p. 11. For a critique, see Kalin Ivanov, 'Legitimate Conditionality? The European Union and Nuclear Power Safety in Central and Eastern Europe' (2008) 45 *International Politics* 146–67.
[170] See the Commission document 'Guide to the main administrative structure required for implementing the acquis'. Informal Working Document, May 2005. The Guide was not binding, but 'produced as a working tool mainly for use by experts working for the European Commission'.

should be organised and how it should operate.[171] These requirements are similar to the Member States' obligations under the Nuclear Safety Convention, which, at the time, the Euratom had acceded to. The Guide did not refer to the Convention, however. The Guide was more cautious about nuclear waste, perhaps because the Euratom had not yet acceded to the Joint Convention: 'There is no explicit acquis reference for an institutional structure for handling radwaste, although its existence […] may be *useful*'.[172]

There was a discrepancy between what the EU demanded from Candidate States and what could be achieved internally, as no internal legislation on nuclear safety existed at the time. This is, however, not to say that the EU imposed 'double standards' on Candidate States[173]; the level of nuclear safety was higher in the EU Member States. But this discrepancy was to become problematic in the future. Implementation was expected to take several years, even beyond enlargement. As there was no 'internal' nuclear safety legislation, there was a risk that the EU could be accused of differential treatment between new and present Member States. In order to avoid this, it had become necessary to adopt 'internal' legislation. In addition, post-enlargement, the endeavour to improve nuclear safety in Eastern Europe by financial assistance continues.[174]

5.3.4 The 'Nuclear Package'

Prior to the enlargement, nuclear safety in the Member States was not a major concern. Beyond emergency measures, the Euratom had no 'internal' legislation. The enlargement made preventive legislation a necessity, because further

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[171] The Guide provides: 'This body should, among other things, be given the legal authority to grant licenses and to regulate the location, design, construction, commissioning, operation or decommissioning of nuclear installations […]. This body should be provided with adequate authority, competence and financial and human resources to fulfil its assigned responsibilities. There should be an effective separation between its functions and those of organisations concerned with the promotion or utilisation of nuclear energy.' Ibid.

[172] Emphasis added.

[173] Cf. Christophe Hillion, 'EU Enlargement', in Paul P. Craig and Gráinne De Búrca (eds.), *The Evolution of EU law* (Oxford: Oxford University Press, 2011), pp. 155–85. Hillion mentions accession conditions on minorities, election laws, independent media, and judiciary.

[174] For example, in 2010, the Euratom adopted Council Regulation (Euratom) No 647/2010 of 13 July 2010 on financial assistance of the Union with respect to the decommissioning of Units 1 to 4 of the Kozloduy Nuclear Power Plant in Bulgaria (Kozloduy Programme) OJ 2010 No. L189, 22 July 2010 p. 9.

improvements had to be made in the new Member States. In 2002, the Court clarified in the *Nuclear Safety* Case that a legal basis exists. This opened up for legislation. In 2003, the Commission submitted two proposals: one proposal on a Nuclear Safety Directive and one on a Nuclear Waste Directive.[175] They took Article 31 combined with Article 32 of the Euratom Treaty as their legal bases.[176] After a long legislative process,[177] the Council agreed in 2009 on the Directive establishing a community framework for the nuclear safety of nuclear installations ('the Nuclear Safety Directive'), and in 2011, on the Directive on spent fuel and radioactive waste ('the Nuclear Waste Directive').[178] We shall now briefly examine these two Directives,[179] considering what their added value is vis-à-vis the international framework.

5.3.4.1 The Nuclear Safety Directive

The Nuclear Safety Directive[180] is largely based on the principles endorsed by the Nuclear Safety Convention, to which all the Member States were already Contracting Parties.[181] The Directive is also based on the IAEA's 'Safety

[175] Proposal for a Council Directive (Euratom) on the Management of Spent Nuclear Fuel and Radioactive Waste; and Proposal for a Council (Euratom) Directive Setting out basic obligations and general principles on the safety of nuclear installations, COM(2003) 32 final.
[176] True argued that the legal basis was too limited for the 'nuclear package' and that legal bases in the EC Treaty should be added. See Christiane True, 'Legislative competences of Euratom and the European Community in the Energy Sector: The Nuclear Package of the Commission' (2003) 28 *European Law Review* 664–85. See also Pamela Barnes, 'Nuclear safety for nuclear electricity – the search for a solid legal basis for nuclear safety in a enlarged EU' (2003) 45 *Managerial Law*, 115–39.
[177] A majority could not be reached in the Council on the two proposals from 2003. A year later, revised proposals were submitted. Amended proposal for a Council Directive (Euratom) Laying Down Basic Obligations and General Principles on the Safety of Nuclear Installations; and Amended proposal for a Council Directive (Euratom) on the safe management of the spent nuclear fuel and radioactive waste, COM(2004) 526 final. They were withdrawn. In 2008 and 2010, the Commission submitted new proposals. Proposal for a Council Directive (Euratom) setting up a Community framework for nuclear safety, COM(2008) 790 final; and Proposal for a Council Directive on the management of spent fuel and radioactive waste, COM(2010) 618.
[178] Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community Framework for the Nuclear Safety of Nuclear Installations OJ 2009 No. L172 p. 18; and Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community Framework for the Responsible and Safe Management of Spent Fuel and Radioactive Waste, OJ 2011 No. L199, p. 48.
[179] For a discussion, see Anna Södersten, 'The EU and Nuclear Safety: Challenges Old and New', Swedish Institute for European Policy Studies (2012:10epa).
[180] Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community Framework for the Nuclear Safety of Nuclear Installations, OJ 2009 No. L172, p. 18.
[181] It is also based on the technical work of the Western European Nuclear Regulators Association (WENRA), and on input from the European High Level Group on Nuclear Safety and Waste

Fundamentals',[182] which is a non-binding international instrument. The Nuclear Safety Directive sets up 'minimum obligations'; it does not prevent Member States from taking more stringent safety measures. But the Directive is rather weak in the sense that it does not go much further than what is already established on the international level, neither does it harmonise any technical standards.

Just like the Nuclear Safety Convention, the Directive provides for the establishment of a 'national legislative, regulatory and organisational framework'.[183] This national framework shall establish responsibilities for the adoption of national nuclear safety requirements; a licensing system; the provision of a system of nuclear safety supervision; and enforcement actions. Similar to the Nuclear Safety Convention, the Directive includes provisions on the regulatory authorities, which have to be functionally independent from any body or organisation concerned with the promotion or utilisation of nuclear energy.[184] The Member States have to ensure that the national regulatory authority is given the necessary legal powers, and human and financial resources. The Directive also includes provisions setting up fundamental requirements on licence holders (i.e., the nuclear operators), but it does not set out what a permit must contain. Further, the Directive stipulates that the prime responsibility for nuclear safety of a nuclear installation rests with the licence holder.[185] This principle comes from the Nuclear Safety Convention.

The Directive obliges the Member States to ensure that the national framework requires arrangements for education and training.[186] A similar provision is found in the Nuclear Safety Convention. The Directive also includes a provision on

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Management established by the Commission in 2007 (later renamed the European Nuclear Safety Regulators Group [ENSREG]).

[182] This publication states the fundamental safety objective and 10 associated safety principles. For an overview of which articles in the Directive correspond to the IAEA's Safety Fundamentals, see Yvan Pouleur and Petr Krs, 'The Momentum of the European Directive on Nuclear Safety – From the Complexity of Nuclear Safety to Key Messages Addressed to European Citizens' (2010) 85 *Nuclear Law Bulletin* 5–33 at 13.

[183] Article 4 of the Nuclear Safety Directive. Cf. Article 7 of the Nuclear Safety Convention.

[184] Article 5 and Recital 8 of the Preamble of the Nuclear Safety Directive. The Directive also broadly sets out the duties of the regulatory authorities.

[185] Article 6 and Recital 8 of ibid.

[186] Article 7 of the Nuclear Safety Directive.

information to the public,[187] but it leaves some flexibility to the Member States. The information shall only be made available to the public '*in accordance with national legislation* and international obligations',[188] and provided that this does not 'jeopardise *other interests* such as, inter alia, security, recognised in national legislation or international obligations'.[189]

The Directive stresses that it rests with the competence of the Member States to determine how the national nuclear safety requirements are adopted and through which instrument they are applied.[190] The Member States are obliged to submit a report to the Commission on the implementation of the Directive every three years.[191] Just like the Convention, the Directive also provides for a peer review system.[192] In order to avoid duplication of the Member States' international obligations, the Member States may 'take advantage of the review and reporting cycles under the Nuclear Safety Convention'.[193]

Under the Directive, the Member States shall arrange for self-assessments of their national framework 'at least every 10 years'. The Member States shall invite an international peer review from the national authorities, and the outcome of the peer review shall be reported to the Member States and to the Commission. This element seems weaker than in the Nuclear Safety Convention, which provides that reporting and peer review shall take place every three years, and which also provides for the setting up of review conferences. But unlike the Convention, the Directive does not contain a confidentiality clause on the national reports or on the outcome of the review. When the outcome is made public, there is public pressure in addition to the pressure from peers. However,

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[187] Article 8 of ibid. Cf. Article 24(1) and Annex IV; UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), Aarhus, 25 June 1998, in force 30 October 2001, 2161 UNTS 447; 38 ILM 517 (1999).
[188] Emphasis added.
[189] Emphasis added.
[190] In its initial 2003 proposal, the Commission suggested the creation of a Community body of safety inspectors and common safety standards for existing nuclear installations, but it was not possible to reach a majority in the Council on these issues. In its 2008 proposal, the Commission presented a scaled-back solution – only new nuclear power reactors would be subject to common safety standards. This suggestion did not make it into the Directive either.
[191] Article 9 of the Nuclear Safety Directive.
[192] Ibid., Article 9.3.
[193] Ibid., Article 9.1.

the main function of the self-assessments and the peer review system is not enforcement, but a 'learning mechanism'.[194]

5.3.4.2 The Nuclear Waste Directive

The Nuclear Waste Directive[195] imposes obligations on all Member States because all Member States generate radioactive waste: it results from industrial, agricultural, and medical activities.[196] The Directive establishes 'a Community framework for ensuring responsible and safe management of spent fuel and radioactive waste to avoid imposing undue burdens on future generations'.[197] It states that it should be an 'ethical obligation' of each Member State to avoid such a burden[198]and that each Member State shall have ultimate responsibility for management of the spent fuel and radioactive waste generated in it.[199]

The Directive is based on international legislation, in particular the Joint Convention and the non-binding IAEA Safety Standards. The structure is also very similar to the Nuclear Safety Directive. The Member States are required to establish a 'national framework'[200]which shall include a system for licensing, control, documentation, enforcement actions, national requirements for public information and participation, and a financing scheme. The Member States are required to establish a regulatory authority,[201] which shall be functionally independent. It includes equally broad requirements on licence holders,[202] and it

[194] Recital 21 of the Preamble of the Nuclear Safety Directive reads: 'The self-assessments followed by international peer reviews are neither an inspection nor an audit, but a mutual learning mechanism […]. The international peer reviews should be regarded as an opportunity to exchange professional experience and to share lessons learned and good practices in an open and cooperative spirit through advice by peers rather than control or judgement'.
[195] Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community Framework for the Responsible and Safe Management of Spent Fuel and Radioactive Waste, OJ 2011 No. L199, p. 48. For a detailed analysis of the Nuclear Waste Directive, see Ute Blohm-Hieber, 'The Radioactive Waste Directive: A Necessary Step in the Management of Spent Fuel and Radioactive Waste in the European Union' (2011) 88 *Nuclear Law Bulletin* 21–35.
[196] The Nuclear Waste Directive is thus broader in scope than the Nuclear Safety Directive, which only imposes obligations for Member States with nuclear power programmes.
[197] Article 1 of the Nuclear Waste Directive.
[198] Recital 24 of the Preamble of the Nuclear Waste Directive.
[199] Article 4.1 of the Nuclear Waste Directive.
[200] Ibid., Article 5.
[201] Ibid., Article 6.
[202] Ibid., Article 7.

states that the Member States shall ensure that the parties make arrangements for education and training, as well as research and development activities.[203]

Further, similar to the Nuclear Safety Directive, it imposes an obligation on the Member States to inform the public on the management of nuclear waste[204] and to ensure that the public be given opportunities to participate in the decision-making process in accordance with national legislation and international obligations.[205] The Member States are required to establish 'national programmes' for the implementation of national policies. Member States shall notify the Commission of their national programmes, and the Commission may request clarifications.[206] The Directive also establishes a reporting system and a peer review system very similar to those under the Nuclear Safety Directive.[207]

The national programmes shall cover the management of waste 'from generation to disposal'. This means that Member States have to find solutions to deal with radioactive waste on a more permanent basis. But the Member States have very different approaches to the management of radioactive waste.[208] Today, radioactive waste is mainly stored in temporary storage facilities. Some countries, notably Finland and Sweden, are advanced in the development of deep geological disposal sites.[209] The Directive states that 'storage of radioactive waste […] is an interim solution, but not an alternative to disposal'.[210] The national programmes shall, *inter alia*, include 'the overall objectives of the Member State's national policy' and 'the significant milestones and clear timeframes'.[211] The national programmes shall also include descriptions of

[203] Ibid., Article 8.
[204] Article 10.1 of the Nuclear Waste Directive. The scope of this obligation is equally vague, and leaves space to decision-makers in the Member States.
[205] Ibid., Article 10.2.
[206] Ibid., Article 13.
[207] Ibid., Article 14.
[208] For an analysis of liability issues in Sweden, see Per Cramér, Sara Stendahl, Thomas Erhag, 'Ansvarstagande i kärnbränslecykelns slutsteg – ett rättsligt perspektiv', Swedish Nuclear Fuel and Waste Management (SKB), 2010, available at www.skb.se.
[209] In the Commission's initial proposal, it required the Member States to identify and authorise the development of such sites. These formulations were removed in later drafts. See Proposal for a Council Directive (Euratom) on the Management of Spent Nuclear Fuel and Radioactive Waste, COM(2003) 32 final.
[210] Recital 21 of the Preamble of the Nuclear Waste Directive.
[211] Following the discussions in the Council, the Commission revised the proposal not to include a common timetable for final disposal. The national safety authorities argued that a timetable would potentially endanger the safety of disposal sites and that authorities would be pressed to

implementation activities, cost assessments, and financing schemes. The aim with these rather soft obligations is to 'ensure the transposition of political decisions into clear provisions'.[212] Thus, the idea is that the Member States have to formulate their policy in this area clearly, i.e., they have to make concrete decisions. It should be noted that the Commission did not include a proposal to create a common disposal facility, similar to the one that has been discussed in the United States for many years.[213] The Directive does, however, recognise some Member States' wish to cooperate in such a way.[214]

Finally, it should be mentioned that Austria, Luxembourg, and Sweden abstained from voting on the Directive, because of the failure to include an export ban.[215] The Commission and the European Parliament had suggested a ban on export to third countries, but the Council eventually decided that nuclear waste could continue to be shipped to other countries, however, only under certain restrictions.

5.3.4.3 Post Fukushima: Towards Common Technical Standards?

With this brief account of the two Directives now behind us, how can we characterise this nuclear safety framework? Both Directives are so-called framework Directives, which can be defined as 'laws which are binding as to their aim but leave discretion as to the manner of implementation'.[216] They leave autonomy for the Member States, stating that 'national circumstances' will be taken into account when the Member States develop their national frameworks.

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grant authorisation although the technical assessment would point in another direction. The Commission admitted that '[a] more flexible system leaving the Member States free to fix their own dates, with respect of timetables based on the peer pressure, such as in IAEA conventions, appears therefore preferable'. See Amended proposal for a Council Directive (Euratom) Laying Down Basic Obligations and General Principles on the Safety of Nuclear Installations, COM(2004)526 final.

[212] Recital 28 of the Preamble of the Nuclear Waste Directive.

[213] Richard B. Stewart, 'U.S. Nuclear Waste Law and Policy'.

[214] See Recital 33 of the Preamble of the Nuclear Waste Directive.

[215] In a Joint Declaration, these countries state that they 'regret that the Community has not been able to confirm its full responsibilities to take care of its own spent fuel and radioactive waste, by accepting the possibilities to export waste for disposal in third countries'. See Council of the European Union, 8 July 2011, Brussels, doc.12248/11, Annex II.

[216] Gráinne de Búrca and Joanne Scott, 'Introduction' in Gráinne de Búrca and Joanne Scott (eds.), *Law and New Governance in the EU and the US* (Oxford: Hart, 2006).

The Euratom is the first regional actor that has adopted binding legislation on nuclear safety. But as explained, the two Directives largely replicate what already exists on the international level. The Euratom nuclear safety framework can thus be seen as an additional 'soft layer' between the national and international level.[217] One important difference is that the Commission can initiate an infringement procedure if a Member State should fail to implement the Directives.[218] Such a mechanism is missing in the international Conventions, which merely relies on a peer review system. The Directives could be said to make the 'international' obligations enforceable.[219]

It should be pointed out that the Commission initially advocated a more harmonised approach than the one eventually agreed upon. It had to remove any phrasing that would imply the development of common safety standards. This is a 'gap' that is filled by standards from international bodies, such as the IAEA, and European 'informal' bodies, such as the Western European Nuclear Regulators' Association (WENRA), which is composed of Regulatory Authorities in the Member States. The Directives emphasise the importance of these norm-creating actors.[220]

The Fukushima accident in 2011 provided a window of opportunity for a strengthened nuclear safety framework. Following the accident, the European Council decided that a risk and safety assessment ('nuclear stress tests') would be carried out throughout the EU.[221] The aim was to assess whether the safety

[217] It should be noted that we are not saying here that the Nuclear Safety Framework could be characterised as 'soft law'. As Trubek et al. point out, '"Soft law" is a very general term, and has been used to refer to a variety of processes. The only common thread among these processes is that while all have normative content they are not formally binding. David M. Trubek, Patrick Cottrell, and Mark Nance, '"Soft Law," "Hard Law," and European Integration: Toward a Theory of Hybridity', in Gráinne de Búrca and Joanne Scott (eds.), *Law and New Governance in the EU and the US* (Oxford: Hart, 2006), pp. 65–94. Both Directives, however, apply a 'soft' language; for example, the Nuclear Waste Directive obliges Member States to ensure that the national framework requires license holders to 'assess, verify and continuously improve, as far as is reasonably achievable, the safety of the radioactive waste and spent fuel management facility'. See Article 7.2 of the Nuclear Waste Directive.
[218] See Article 258 TFEU. Article 106a Euratom refers to this provision. If the Member State does not comply, the Commission may refer the case to the CJEU.
[219] The Nuclear Safety Directive covers all kinds of civilian reactors. In that sense, it has a wider scope than the Nuclear Safety Convention.
[220] In 2007, the EU created its own nuclear safety body, ENSREG, which consists of the same members as WENRA. Membership of WENRA, however, does not require EU Membership.
[221] See the conclusions of the European Council (24/25 March 2011), EUCO 10/1/11 REV 1.

margins used in the licensing of nuclear power plants were sufficient to cover unexpected events, such as risks of flooding, earthquakes, aircraft accidents, cooling system instability, local electricity supply failure and cyber and terrorist attacks.[222] The 'stress tests' were largely used as a tool to illustrate a need for a more harmonised approach; the European Council also gave a mandate to the Commission to 'review the existing legal and regulatory framework'. Unsurprisingly, the Commission concluded that there were indications that the national regulators have 'different approaches to safety and use varying criteria to define safety improvements' and outlined 'some initial orientations for strengthening the EU nuclear safety framework'.[223] In 2013, the Commission submitted a proposal on a strengthened Nuclear Safety Directive,[224] and the Council adopted an amended a Directive in July 2014.[225] Common safety standards are, however, not yet in sight.

5.3.5 Nuclear Liability

This final section considers the international regime of nuclear liability and the possibility to adopt rules on a EU (Euratom) level. There are international conventions governing nuclear liability, but no EU rules. There are now discussions on EU involvement, and the Euratom is a potential legal basis for such legislation. This section first explains the specificity of nuclear liability and then briefly outlines the international framework. It thereafter examines the question of whether the Euratom Treaty provides a legal basis for nuclear liability. Finally, some issues on jurisdiction and cross-treaty aspects of nuclear liability shall be briefly discussed.

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[222] The stress tests began in June 2011, after the Member States had agreed on the details. The nuclear operators and the national regulators, in collaboration with the Commission, are in charge of the nuclear safety stress tests, which consist of an assessment phase, and a peer review phase.

[223] See Communication from the Commission to the Council and the European Parliament on the Interim Report on the Comprehensive Risk and Safety Assessments ('stress tests') of nuclear power plants in the European Union, COM(2011) 784 final.

[224] Proposal for a Council Directive amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations, COM(2013) 715 final.

[225] Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations, OJ 2014 No. L219, 25 July 2014, p. 42.

5.3.5.1 Nuclear Liability Regimes

What is nuclear liability and why is there a need for special nuclear liability regimes? In comparison to conventional (non-nuclear) industrial activities, the risk of nuclear incidents is considered small, but potential damages are serious and costly. Under general liability legislation, nuclear operators would have unlimited liability. But no private insurance companies would provide such insurance. The risk is that victims would not be sufficiently protected and that fear of liability claims would inhibit nuclear investments.[226]

There are five specific 'principles' that govern most nuclear liability regimes. According to the first one, the nuclear operator is strictly liable. This is because it is very difficult for a claimant to prove negligence, intention, or omission. The second principle stipulates that the nuclear operator's liability is exclusive; no other party than the operator is liable. The victims do not need to identify potential defendants because the liability is 'channelled' to the operator. The third principle requires that operators shall be covered by financial security[227] to ensure that there will be money available to victims. The fourth stipulates that in the event of an accident, the operator is only liable up to a fixed amount. According to the fifth principle, liability shall be fixed in time. This is because private insurers usually have a limit for their coverage. The limit is usually set at 10 years. For periods longer than that it is hard to prove that it is the radiation from an incident that has caused an illness, and not something else. These restrictions in amount and time have been described as the 'quid pro quo' for the victims' benefits of the operators' strict and exclusive liability.[228] Nuclear liability is thus not only about the protection of victims, but also about the development of the nuclear industry.

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[226] See Julia A. Schwartz, 'Liability and Compensation for Third Party Damage Resulting from a Nuclear Incident', in *International Nuclear Law: History, Evolution and Outlook* (Issy-les-Moulineaux: Nuclear Energy Agency, Organisation for Economic Co-operation and Development, 2010, No. 6934), pp. 307–54. For a general overview, see also Xue Hanqin, *Transboundary Damage in International Law* (Cambridge: Cambridge University Press, 2003).
[227] The insurance companies have established 'pools', where they are pooling their assets.
[228] Schwartz, 'Liability and Compensation for Third Party Damage Resulting from a Nuclear Incident', p. 313.

5.3.5.2 The International Nuclear Liability Framework

The need for an international nuclear liability regime was recognised early on. In the early 1960s, two international conventions were drawn up: the Paris Convention[229] and the Vienna Convention.[230]The Paris Convention was adopted under the aegis of the OECD's Nuclear Energy Agency (NEA). It is regional in scope.[231] The Vienna Convention was adopted under the aegis of the IAEA. It is global in scope.

The Paris Convention and the Vienna Convention are governed by the same principles (see above) and are fairly 'similar in substance'.[232] But there are also important differences. Both conventions set out a minimum amount of the nuclear operator's liability,[233] but only the Paris Convention has a fixed upper ceiling. It was noted early on that the Paris Convention did not provide sufficient coverage for victims. This led to the adoption of the Brussels Convention,[234] which provides for a system with additional funding. Under this system, all Contracting Parties share risks jointly.[235] The Conventions provide for different solutions when it comes to transport.[236]

Both the Paris Convention and Vienna Convention provide that the operator must have financial security for an amount corresponding to the liability. If the security does not suffice, the Contracting Party has to make up the difference. Both Conventions compensate for damage to or loss of life and property. After

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[229] The Paris Convention on Third Party Liability in the Field of Nuclear Energy, 29 July 1960, in force 1 April 1968, 956 UNTS 263.
[230] 1963 Convention on Civil Liability for Nuclear Damage ('The Vienna Convention'), Vienna, 21 May 1963, in force 12 November 1977 (Article XXIII), 1063 UNTS 265 / 2 ILM 727 (1963), INFCIRC/500.
[231] Only the European OECD countries are members. The non-European countries (the United States, Canada, Mexico, Japan, and South Korea) have not joined.
[232] See The Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention, Vienna, on 21 September 1988, in force 27 April 1992, doc. IAEA/GOV/2326(1988), Annex I, INFCIRC/402.
[233] Vienna Convention sets the minimum at US$ 5 million. The Paris Convention sets the operator's maximum liability at 15 million SDR, if the State provides 5 million SDR. Contracting Parties may set a higher ceiling under certain circumstances.
[234] Convention Supplementary to the Paris Convention on Third Party Liability in the Field of Nuclear Energy ('Brussels Convention'), 31 January 1963, in force 4 December 1974, 1041 UNTS 358.
[235] Under the Brussels (Supplementary) Convention, the funding thus consists of a contribution by the state, and, ultimately, by other Contracting Parties. It provides additional funding up to a total of 300 million SDRs.
[236] Article 4 of the Paris Convention; Article II of the Vienna Convention.

amendments,[237] the Conventions also compensate economic loss, cost of reinstating impaired environment, cost of preventive measures, and incomes from direct economic interest in use of environment. Further, both Conventions provide that the operator is not liable for damage caused by nuclear incidents directly due to armed conflict, hostilities, civil war or insurrection, or 'grave natural disaster of exceptional character'.[238] After amendments, the 'grave natural disaster' exemption is revoked. Furthermore, the liability is limited in time under both Conventions; the right to compensation is extinguished if the action is not brought within 10 years of the nuclear incident.[239] The amended Conventions extend the time-period to 30 years for loss of life or personal injury.

The Conventions apply only if the incident occurs in the territory of a Contracting Party.[240] The amended Paris Convention provides that non-State Parties can also be compensated if they are a party to either the Vienna Convention or to the 'Joint Protocol' (see below), or if it has no nuclear installations.[241] The amended Vienna Convention applies to compensate damage in any state, except for States that have nuclear installations but do not have equivalent benefits. The Conventions also contain provisions on Court jurisdiction. Actions lie with the Court of the State where the incident occurs.[242] If the incident occurs outside the territory of a Contracting Party, the jurisdiction lie with the courts of the contracting party in whose territory the nuclear installation of the operator liable is situated. Judgments shall be recognised and

[237] The Paris Convention and the Brussels Convention were amended in 1964, 1982 and 2004. See Protocol to Amend the Paris Convention on Third Party Liability in the Field of Nuclear Energy of 29 July 1960; Protocol to Amend the Brussels Convention Supplementary to the Paris Convention of 29 July 1960. The Vienna Convention was amended in 1997. See The Protocol Amending the Vienna Convention. The amending Protocol entered into force in 2003 but it has only 9 contracting parties. All states can be parties to the Protocol, not only parties to the Vienna Convention.

[238] See Article 9 of the Paris Convention ('Except in so far as the legislation of the Contracting Party in whose territory his nuclear installation is situated may provide to the contrary'). Cf. Article IV of the Vienna Convention. It can be noted that there is no exoneration for terrorism. Further, the Conventions grant the operator a right of recourse if damage results from an act or omission done with intent to cause damage, or so provided expressly by contract.

[239] The Contracting Parties may also establish time limits from the date the claimant knew of the damage. The 2004 Protocols to the Paris and Brussels Conventions (not yet in force) extend this period to 30 years (for loss of life and personal injury). Longer periods are possible under certain circumstances.

[240] The Paris Convention may also apply if the incident or damage occurs outside the PC State.

[241] If it has nuclear installations, it may still claim compensation if it has national legislation, which is based on the Paris Convention, and if the benefits are reciprocal.

[242] Article 13 of the Paris Convention; Article XI of the Vienna Convention.

enforceable in the territory of any of the other Contracting Parties. Finally, both Conventions contain provisions on non-discrimination of victims on the ground of nationality, domicile or residence.

The Paris and Vienna Conventions have been amended many times. Some countries have only signed up to some of the amendments. Therefore, the Conventions and their amendments have been described as forming a 'patchwork' of rules,[243] which could lead to uncertainties in the event of an accident.[244]Some efforts have been made to streamline the various instruments: A 'Joint Protocol' was adopted to link the two Conventions in 1988.[245] It ensures that only one convention applies in the event of an accident.[246] However, not all States have adopted the Joint Protocol. After this brief overview, we shall turn our attention to the EU and Euratom.

5.3.5.3 Nuclear Liability on the EU Level

The Euratom recognised the importance of nuclear liability at an early stage. The Euratom's First General Report from 1958 stated[247]:

> [T]he importance of the complex problems involved in the insurance of nuclear plants is obvious: e.g., the need to ensure for adequate compensation for the victim; the extent of the risk to be insured; the possibility of State intervention; and proof of negligence. These problems, in the interest of everyone concerned, call for a rapid and uniform solution.

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[243] Jakub Handrlica, '"European Exceptionalism" and Nuclear Third Party Liability' (2011) 3 *International Journal of Nuclear Law* 163–92.

[244] The Preamble of the Joint Protocol recognized that 'adherence to either Convention by Parties to the other Convention could lead to difficulties resulting from the simultaneous application of both Conventions to a nuclear incident'. See the Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention, Vienna, on 21 September 1988, in force 27 April 1992, INFCIRC/402.

[245] Ibid. The Joint Protocol was adopted by the Conference on the Relationship between the Paris Convention and the Vienna Convention, convened by the IAEA and the OECD. Its aim is to 'establish a link between the Vienna Convention and the Paris Convention by mutually extending the benefit of the special regime of civil liability for nuclear damage set forth under each Convention and to eliminate conflicts arising from the simultaneous applications of both Conventions to a nuclear incident'. See the Preamble to the Joint Protocol.

[246] See Article II of the Joint Protocol. A nuclear operator in a State which is a party to the Vienna Convention, is also liable for damage in the territory of Parties of the Paris Convention. Correspondingly, a nuclear operator in a Paris Convention State is also liable for damage in the territory of Parties of the Vienna Convention.

[247] European Commission, First General Report on the Activities of the Community (January 1958 to September 1958).

We can also note that the geographical situation in Europe was promptly perceived as a serious problem. In the Third General Report from 1960,[248] the Commission noted:

> The geographical situation in Europe is such that the possibility exists of damage being caused in areas beyond the borders of the country in which a nuclear accident occurs. It is, therefore, essential to devise some reciprocal system whereby victims can be compensated, irrespective of nationality.

At the end of the 1950s, the Commission convened a group of experts to undertake a study of the problems involved, but legislation was never adopted. The Paris Convention was already under negotiation, and by 1960 all six Euratom Member States had signed it, except for Luxembourg. The Paris Convention had a wider geographical scope than the Euratom as it covered all the OEEC countries. In addition, it might also be the case that the Euratom Member States preferred an intergovernmental instrument to Euratom legislation (potentially supranational) in this field. But it should be pointed out that the Euratom was a strong actor in shaping the international conventions.[249] In 1959, the Euratom presented a draft of the 'Brussels Convention' (which was the supplement to the Paris Convention). There were discussions of adopting this Convention under the Euratom framework instead of under the OEEC.[250] The Euratom General Reports even referred to the draft Brussels Convention as the 'Euratom Convention'.[251] The Euratom was also involved in drawing up

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[248] European Commission, Third General Report on the Activities of the Community (March 1959 to April 1960), p. 61, para 80.

[249] As mentioned, its purpose was to 'bridge the gaps left by the OEEC Convention by providing for a system of additional coverage supplied by the Member States […] [I]t raises the ceiling of the operator's liability by providing for contributions from public funds in cases where private coverage is inadequate'. See European Commission, Fourth General Report on the Activities of the Community (April 1960 to March 1961).

[250] The Second Report points out: [I]t would be wrong to make the compensation of the injured parties dependent on the ability of the operator to pay and, secondly, to make the operator responsible for all damages incurred might compromise the immediate and long-term development of the nuclear industry as a whole. There is, therefore, a need for governmental action when an operator becomes liable for more than a certain amount. […] Since this question was not solved by the OEEC Convention, it became necessary to find some solution to the problem of governmental liability within the framework of Euratom. The Commission has, there, set about the task of drafting a supplementary convention on this subject, the text of which will be submitted to Member States for examination by the Council'. See European Commission, Second General Report on the Activities of the Community (September 1958 to March 1959), p. 64.

[251] Ibid.

amendments to the Paris and Vienna Conventions.[252]

In the early 1960s, the Commission pushed ahead with the coordination of the Member States' implementing measures 'to obviate the distortions in competition which would arise from disparities between differing systems of third-party liability'. In 1965, the Commission addressed recommendations to the Member States, calling for standardised implementation of the Conventions.[253] The Commission explained that it 'sought to promote fuller development of the European Nuclear Market, which would be unattainable if Member States were to exercise their freedom under the conventions to adopt differing regulations'.[254] The Commission was also collaborating with Community insurers in drawing up common rules for insurance policies covering third-party liability.[255] Beyond these efforts, nuclear liability did not appear on the political agenda until many years later.

Before the Eastern enlargement in 2004, almost all EU Member States adhered to the Paris Convention. Things became complicated when the new Member States entered the EU. Of the new Member States, almost all were adhering to the Vienna Convention.[256] As mentioned, both Conventions have been amended

[252] The ratifications of the Paris Convention and the Brussels Convention were delayed by the negotiations relating to the IAEA Vienna Convention. In 1964, to align the European conventions with the Vienna Convention so countries could accede to all three, two additional protocols were signed to the Paris and Brussels Conventions. Also these Protocols were drawn up with the help of Euratom. See European Commission, Eighth General Report on the Activities of the Community (March 1964 to February 1965), p. 46.

[253] See Commission Recommendation 65/42/Euratom of 28 October 1965 to the Member States on the harmonisation of legislation applying the Paris Convention of 29 July 1960 and the Brussels Supplementary Convention of 31 January 1963, OJ 1965 No. 196, 18 November 1965, p. 2995; Second Commission Recommendation 66/22/Euratom to the Member States on the harmonization of legislation applying the Paris Convention of 29 July 1960, OJ 1966 No. 136, 25 July 1966, p. 2553; and European Commission, Ninth General Report on the Activities of the Community (March 1965 to February 1966), p. 49.

[254] The Commission's adoption of the recommendation followed a series of meetings to consult with national experts and insurers. The Commission notes with regret that no standard figure could be arrived at regarding an operator's maximum liability within the meaning of the Paris Convention or the inclusion of the means of transport within the meaning of the conventions on liability.

[255] European Commission, Eighth General Report on the Activities of the Community (March 1964 to February 1965), p. 46.

[256] The Paris Convention has today 16 Contracting Parties. 13 of them are EU Member States: Belgium, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Portugal, Slovenia, Spain, Sweden, and the United Kingdom. Austria and Luxembourg have signed, but not yet ratified the Paris Convention. The Brussels Convention has 13 contracting parties; all of them are

several times. Only some Member Stats have ratified the amendments. Some Member States do not adhere to any convention.[257] This means that in the EU, there are many 'levels' of participation. As a result, nuclear operators and potential victims are governed by different rules.[258] Therefore, the insurance might differ in terms of fees and coverage. As explained, the Euratom has neither adopted its own legislation on nuclear liability, nor is it a party to any of the international Conventions. The Commission is now aiming at harmonising nuclear liability[259]and a draft proposal is under preparation. The options are adopting EU/Euratom legislation and/or accession to any of the conventions.

What would the legal basis for legislation be? One possibility is Article 98 Euratom, which is located in Title, II, Chapter 9, on the nuclear common market. It obliges the Member States to take action necessary to 'facilitate the conclusion of insurance contracts'. It also calls on the Council to adopt Directives for the application of this provision.[260] In the beginning of the 1960s, the Commission drafted two Directives on the basis of this provision. They urged the Member States to speed up work on the Paris Convention and the (supplementary) Brussels Convention. The drafts required 'the Member States to take all the necessary steps with a view to the rapid conclusion of these conventions and the

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parties to the Paris Convention. Two non-EU Member States, Norway and Turkey, are also contracting parties. The Vienna Convention has 35 contracting parties. The following EU Members adhere to the Vienna Convention: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, and Slovakia.

[257] Austria, Cyprus, Ireland, Luxembourg, and Malta.

[258] Note also the Convention on Supplementary Compensation for Nuclear Damage (the CSC), 22 July 1998, INFCIRC/567 (not yet in force). Under the CSC, States must bring national legislation into line with the liability rules under the Paris Convention and the Vienna Convention, but they do not have to be parties of these conventions. The CSC only has four Contracting Parties. The following EU Member States have signed it: the Czech Republic, Italy, Lithuania, and Romania.

[259] Commission Communication – Nuclear Illustrative Programme Presented under Article 40 of the Euratom Treaty for the opinion of the European Economic and Social Committee, COM(2006) 844, p. 17. In 2009, a legal study was published on behalf of the Commission, lining up the alternative courses for EU action. See Final Report TREN/CC/01-2005 Legal Study for the Accession of Euratom to the Paris Convention on Third Party Liability in the Field of Nuclear Energy. In 2011, the Commission set up the Expert Group on Nuclear Third Party Liability to prepare the draft proposal.

[260] Article 98 Euratom reads: 'Member States shall take all measures necessary to facilitate the conclusion of insurance contracts covering nuclear risks.
The Council, acting by a qualified majority on a proposal from the Commission, which shall first request the opinion of the Economic and Social Committee, shall, after consulting the European Parliament, issue directives for the application of this Article'. This provision originally included an obligation to act within two years after the entry into force of the Euratom Treaty. The Amsterdam Treaty removed this imposition.

coordination of their respective laws in line with Article 98'.[261]But Article 98 was regarded as a limited competence: it only allowed the Commission to 'encourage and spur on Member States to adopt the appropriate legislative measures'.[262]

An alternative legal basis could therefore be Article 203 Euratom, which is the Euratom Treaty's correspondent provision to Article 352 TFEU, the 'flexibility clause'. It reads:

> If action by the Community should prove necessary to attain one of the objectives of the Community and this Treaty has not provided the necessary powers, the Council shall, acting unanimously on a proposal from the Commission and after consulting the European Parliament, take the appropriate measures.

Thus, Article 203 Euratom can be used to attain one of the Euratom's objectives. It is increasingly applied, often together with Article 352 (previously 308 EC).[263] It would not be possible to use Article 98 together with Article 203 because the legislative procedures are not compatible. While Article 98 provides for qualified majority in the Council, Article 203 stipulates unanimity. Under both provisions, the European Parliament shall only be consulted.

Is there an alternative legal basis under the EU Treaties? Legislation on third party liability under the TFEU is adopted under the environmental provisions (Article 192 TFEU). One example is the Directive on Environmental Liability from 2004,[264] which explicitly stipulates that it does not apply to nuclear risks or

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[261] European Commission, Fourth General Report on the Activities of the Community (April 1960 to March 1961).

[262] Etienne Hirsch (1961) Speech [on the annual report of the European Atomic Energy Community] delivered to the European Parliament by Mr. Etienne Hirsch, President of the Euratom Commission, Strasbourg, 29 June 1961: 'In the field of insurance against nuclear accidents, where the Commission can do no more than encourage and spur on Member States to adopt the appropriate legislative measures, we hope that the last remaining difficulties with regard to the elaboration of the supplementary convention, which will round off the whole structure, will be soon overcome'.

[263] See, for example, Council Decision 2007/779/EC, Euratom of 8 November 2007 establishing a Community Civil Protection Mechanism (recast) OJ 2007 No. L314, 1 December 2007, p. 9.

[264] Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage. According to Article 4 of the Directive, it shall not apply to 'nuclear risks or environmental damage or imminent threat of such damage as may be caused by the activities covered by the [Euratom] Treaty or caused by an incident or activity in respect of which liability or compensation falls within the scope of any of the international instruments listed in Annex V, including any future amendments thereof.' In the annex, the following Conventions are included:

environmental damage caused by the activities covered by the Euratom Treaty. This seems to confirm that the Euratom Treaty is in fact the correct legal basis. The 'corresponding' provisions to the environmental provisions under the EU Treaties would be the Euratom's 'Health and Safety' provisions. As pointed out, these provisions have been interpreted broadly, and they could possibly also be applied for nuclear liability legislation.

Another possibility would be that the Euratom accedes to one of the Conventions (either the Paris Convention or the Vienna Convention). But many obstacles have to be solved before this is possible. The Conventions are not open to regional organisations, so they would first have to be amended. Another difficulty concerns the choice of Convention. If the Euratom would accede to the Paris Convention, how can the fact that some Member States are parties to the Vienna Convention (and its amendments) be dealt with? According to Article 105 Euratom, 'pre-Community agreements' have to be respected, although Article 106 provides that the Member States are required to renegotiate such agreements jointly with the Commission 'in order to ensure that the rights and obligations arising out of such agreements shall as far as possible be assumed by the Community'.[265]

We shall finally say a few words on jurisdiction, which is an important element of any nuclear liability regime. Issues on jurisdiction would fall under EU competence – and not under the Euratom Treaty. Thus, the EU would also have to accede to the Conventions.

5.3.5.4 Issues on Jurisdiction

As already mentioned, both the Paris and Vienna Convention include provisions on jurisdiction. They both provide that jurisdiction lies with the court of the State

(a) the Paris Convention and the Brussels Supplementary Convention; (b) the Vienna Convention; (c) the Convention on Supplementary Compensation for Nuclear Damage; (d) the Joint Protocol; and (e) the Brussels Convention of 17 December 1971 relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material.

[265] Cf. Case 62/98, *Commission* v. *Portugal* [2000] ECR I-5171, paras 49–52.

where the incident occurs[266] and that judgments shall be recognised and be enforceable in the territory of any of the Contracting Parties.

The Contracting Parties initiated negotiations to revise the Paris Convention in 1998. The rules on jurisdiction were also revised. The negotiations were finalised at the beginning of 2002. But the Contracting Parties could not adopt the amendments. The reason was that the EC had adopted Council Regulation 44/2001 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters.[267] In the field of jurisdiction, the EC's competence had become *exclusive*, based on the ERTA doctrine. In *ERTA*,[268] the Court held that if common rules have been adopted, the Member States no longer have the right, acting individually or even collectively, to undertake obligations with third countries which affect those rules. Thus, the Member States could not sign the amended Paris Convention, as it could affect the rules laid down in the Council Regulation[269]; the EC was vested with exclusive competence and the Member States were prohibited from acting themselves.

Under such circumstances, the usual solution is that the EC accedes to the convention alongside the Member States. In this case, however, the EC could not do this because the Paris Convention is not open to regional organisations, only to States. Therefore, the Council mandated the Commission to negotiate the amendment for matters falling within the jurisdiction of the European Community. The Council then adopted a Decision that authorised the Member States to sign, ratify or accede to the amendment 'in the interest of the Community'.[270] The Commission thereafter informed the OECD's Nuclear Energy

[266] If the incident occurs outside the territory of the Contracting Parties, the jurisdiction lies with the courts of the Contracting Party in whose territory the nuclear installation of the operator liable is situated. See Article 13 of the Paris Convention and Articles XI and XII of the Vienna Convention.
[267] Council Regulation (EC) No 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters, OJ 2001 No. L12, 16 January 2001, p. 1. The Regulation is adopted on the basis of Article 61c and Article 67(5) TFEU.
[268] Case 22/70, *Commission* v. *Council* ('ERTA') [1971] ECR 263, paras 17–18.
[269] See the Commission explanatory memorandum attached to Proposal for a Council Decision authorising the Member States which are Contracting Parties to the Paris Convention of 29 July 1960 on Third Party Liability in the Field of Nuclear Energy to ratify the Protocol amending that Convention, or to accede to it, in the interest of the European Community, COM(2003) 409 final.
[270] The Council adopted two Decisions, one that authorised the Member States that are Parties to the Paris Convention to sign the Protocol, and one that authorised the Member States to ratify or to accede to it. See Council Decisions 2003/882/EC of 27 November 2003 authorising the

Agency, the depositary of the Convention, that the Community would accept the draft amendment and that the EC Member States' reservations regarding the jurisdiction rules could be withdrawn; the Contracting Parties could approve the amendment.

This solution is interesting for several reasons. This took place some years before the *Lugano* Opinion (2006),[271] which concerned the EC's accession to the Lugano Convention on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters. Until this Opinion, it was not even clear that the EC had *external* competence in the field of jurisdiction (because Articles 61 and 67 EC did not expressly provide for this). After having established that implicit external competence indeed exists, the Court found that the competence was *exclusive*.[272] The conclusion of the Lugano Convention fell entirely within the sphere of the EC's exclusive external competence.[273] But as the case of the Paris Convention shows, even before the *Lugano* Opinion, the EC was in fact exercising an exclusive external competence in the field of jurisdiction. Why did we have to wait until the *Lugano* Opinion to have this clarified? In the case of the Paris Convention, the Council could not ask the Court

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Member States which are Contracting Parties to the Paris Convention of 29 July 1960 on Third Party Liability in the Field of Nuclear Energy to sign, in the interest of the European Community, the Protocol amending that Convention, OJ 2003 No. L338, 23 December 2003, p. 30; and Council Decision 2004/294/EC of 8 March 2004 authorising the Member States which are Contracting Parties to the Paris Convention of 29 July 1960 on Third Party Liability in the Field of Nuclear Energy to ratify, in the interest of the European Community, the Protocol amending that Convention, or to accede to it, OJ 2004 No. L97, 8 March 2004, p. 53. Both decisions took Article 61 EC, Article 67 EC, and Article 300 EC as their legal bases. The Preamble states: 'The Paris Convention and its Protocol of amendment are not open to participation by regional organisations. As a result, the Community is not in a position to sign or ratify the Protocol, or to accede to it. Under these circumstances, it is justified, on a very exceptional basis, that the Member States ratify or accede to the Protocol in the interest of the Community'. The Commission also emphasised in its explanatory memorandum that '[t]his situation will not constitute a precedent for the future'. See COM(2003) 409 final.

[271] Opinion 1/03 of 7 February 2006 on the competence of the Community to conclude the new Lugano Convention on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters [2006] ECR I-1145.

[272] The Court explained that the previously stated conditions under which exclusive competence arises were only to be seen as examples (para 45 and 121). The Court then reformulated the ERTA test: 'The purpose of the exclusive competence of the Community is primarily to preserve the effectiveness of Community law and the proper functioning of the systems established by its rules' (para 131).

[273] The Court also caught other conventions that include provisions on judicial cooperation: 'any international agreement also establishing a unified system of rules on conflict of jurisdiction such as that established by that regulation is capable of affecting those rules of jurisdiction' (para 151).

for an Opinion on the Convention's compatibility with the provisions of the EC Treaty, because the EC could not accede; the Paris Convention is not open to participation by regional organisations.[274] It should also be pointed out that in comparison to the Lugano Convention, there was perhaps less at stake. The amended Paris Convention would only apply in the unlikely event of a nuclear accident.[275]

We can also note that the Council emphasises that the practice of authorising the Member States to accede 'in the interest of the Community' is 'exceptional'. But as Cremona has shown, this is in fact not an unusual phenomenon.[276] She points out that the EU has used it on several occasions for international conventions that only allow states to accede[277] and also for agreements where the Member States were originally competent but the EU's exclusivity has since 'supervened'.[278] A common denominator seems to be that the negotiations had already started and were almost finalised at the time of the adoption of Council Regulation (EC) No 44/2001. This was a way of 'safeguarding interest of the Community in view of its external competence, while at the same time enabling the Member States to ratify the convention'.[279]

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[274] Article 218.11 TFEU reads: 'A Member State, the European Parliament, the Council or the Commission may obtain the opinion of the Court of Justice as to whether an agreement envisaged is compatible with the Treaties. Where the opinion of the Court is adverse, the agreement envisaged may not enter into force unless it is amended or the Treaties are revised'.
[275] The Court has held that Member States may not enter into international commitments outside the framework of the Community institutions, even if there is no contradiction between those commitments and the common rules (Opinion 2/91, paras 25 and 26).
[276] See Marise Cremona, 'Member States as Trustees of the Union Interest: Participating in international agreements on behalf of the European Union', in Anthony Arnull, Catherine Barnard, Michael Dougan and Eleanor Spaventa (eds.), *A Constitutional Order of States? Essays in EU Law in Honour of Alan Dashwood* (Oxford: Hart Publishing, 2011), pp. 435–57.
[277] See for example, Council Decision 2002/762/EC of 19 September 2002 authorising the Member States, in the interest of the Community, to sign, ratify or accede to the International Convention on Civil Liability for Bunker Oil Pollution Damage 2001, OJ 2002 No. L256, 25 November 2002, p. 7–8; and Council Decision 2002/971/EC of 18 November 2002 authorising the Member States, in the interest of the Community, to ratify or accede to the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996, OJ 2002 No. L337, 13 December 2002, p. 55.
[278] This practice was also used after the *Lugano* Opinion. See for example, Council Decision 2007/727/EC of 8 November 2007 authorising the Republic of Slovenia to ratify, in the interest of the European Community, the Protocol of 12 February 2004 amending the Paris Convention of 29 July 1960 on Third-Party Liability in the Field of Nuclear Energy, OJ 2007 No. L294, 13 November 2007, p. 23.
[279] See the Commission's Proposal for a Council Decision authorising the Member States to sign and ratify in the interest of the European Community the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 (the Bunkers Convention) COM(2001) 675 final.

But even if the Paris Convention would have been open to regional organisations, could the *EC* have acceded? Only one single article of the Paris Convention concerns jurisdictional issues. The other provisions concern issues that may rather fall under Euratom competence. If the EU would accede (and not the Euratom), the EU would have to declare in a declaration of competence that it only had competence in what regards jurisdiction issues.

We shall add that the phrase 'in the interest of the Community' does not only seem to embrace the Community's interest in preserving its prerogative in the field of *jurisdiction*, but also its 'interest' in other aspects of the Convention; in its proposal for the authorising decision, the Commission recognises that the amendment would improve the 'protection for victims' and that it is 'therefore justified that the Community exercises its powers through its Member States'. In other words, it seems that the EC was not only exercising its 'pre-exclusive competence' in the field of jurisdiction, but also competence that might belong to the Euratom Treaty. We can also note that the Commission indicates that the Euratom indeed has competence in the field of nuclear liability in its proposal for a Council Decision authorising Slovenia to ratify the amendment of the Paris Convention.[280]

A final point to make is that the amendment of the Paris Convention is not yet in force and not all Member States are parties to the Paris Convention. So, while the authorising Council decision to accede only concerns certain Member States, Council Regulation 44/2001 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters binds all Member States.[281]

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[280] The Commission states that the Decision is 'without prejudice to the Commission's right of initiatives on third-party liability in the nuclear field based on the Euratom Treaty'. See Proposal for a Council Decision authorising the Republic of Slovenia to ratify, in the interest of the European Community, the Protocol of 12 February 2004 amending the Paris Convention of 29 July 1960 on Third-Party Liability in the Field of Nuclear Energy, COM(2006) 793 final. The reason why the Council had to adopt a separate Decision for Slovenia was that Decision 2004/294/EC was addressed only to certain Member States, i.e., those Member States that were parties to the Paris Convention. Slovenia could not be considered an addressee of that Decision by virtue of Article 53 of the Act of Accession of 2003.

[281] Until 2007, the two Council Decisions on the Paris Convention did not apply to Denmark, because Denmark had an opt-out from Council Regulation 44/2001. In 2007, this changed when an agreement between EU and Denmark entered into force, which extended the provisions of the Regulation to Denmark. See Agreement between the European Community and the Kingdom of

5.4 Conclusions

Nuclear safety has become the Euratom's most significant activity area, despite the fact there is no such explicit Treaty objective. There are two implications of this development. First, the Euratom's objectives, which focus on the development of the nuclear industry, no longer reflect reality. This adds to the perception that the Euratom is outmoded. If we want the Treaties to reflect practice, this is not a satisfactory situation. Second (and this slightly contradicts the first point), it could be argued that the potential use of Euratom for nuclear safety purposes justifies the Treaty's existence (in terms of 'out-put legitimacy'); the Treaty has found a new rationale. The argument is that despite the fact that the Member States are so divided on nuclear energy, the Euratom Treaty is still necessary because it plays an important role in the area of nuclear safety. But as this chapter has shown, nuclear safety is no 'soft' policy area, which is easily agreed upon. In fact, European integration seems to proceed much faster in other policy areas, many of which appear to be equally as politically sensitive as nuclear safety.[282]

Denmark on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters, OJ 2005 No. L299, 16 November 2005, p. 62.

[282] E.g., judicial cooperation in criminal matters.

Chapter 6: Nuclear Non-Proliferation

Contrary to what one might assume, the Euratom Treaty is not a non-proliferation instrument[1]: nuclear non-proliferation is not among the Treaty objectives and the Treaty does not prohibit the use, production, or acquisition of nuclear weapons. Moreover, two of Euratom's 'core states', France and the UK, are recognised nuclear weapon states. France developed its nuclear weapons programme in the 1960s, and the UK's nuclear programme was obviously no obstacle to Community membership in 1973. From a broad perspective, however, non-proliferation can involve a wide range of different measures: safeguards, export controls, nuclear physical protection, and disarmament. Although not a 'non-proliferation' instrument, the Euratom Treaty contains provisions that can be applied to prevent nuclear proliferation. The EU Treaties can also be applied in this field. How is this division made? This chapter outlines the functional division between the Euratom and EU in the field of nuclear non-proliferation.[2] Just like the preceding chapters, this chapter examines gaps and overlaps between the Treaties and discusses the Euratom's added value.

The chapter begins with a brief overview of the international framework. It then examines the Euratom safeguards provisions and how they relate to the IAEA safeguards system. The chapter then examines the development of the EU export control system and it explains why the Euratom Treaty was not chosen as a legal basis. Thereafter, it examines the Euratom's accession to the Convention on the Physical Protection of Nuclear Material. The chapter finally explores the measures adopted under the common foreign and security policy.

[1] The aim of nuclear non-proliferation is to prevent the spread of nuclear weapons. Generally, 'non-proliferation' refers not only to the spread of nuclear weapons, but also to the spread of chemical, biological, and conventional weapons. This chapter only focuses on *nuclear* non-proliferation.

[2] For an overview of the EU's non-proliferation policy, see e.g., Panos Koutrakos, 'The Non-proliferation Policy of the European Union', in Malcolm Evans and Panos Koutrakos, *Beyond the Established Legal Orders: Policy Interconnections between the EU and the Rest of the World* (Oxford: Hart, 2011), pp. 249–72.

6.1 A Brief Overview of the International Framework

This section provides an overview of the international instruments to readers not otherwise familiar with them. The international 'non-proliferation regime' consists of a wide range of instruments: global treaties, regional arrangements, and bilateral agreements.[3] This section will begin with a description of the IAEA safeguard system and the Non-Proliferation Treaty (NPT), the nuclear export control regimes, 'specific' international conventions and regional solutions, and finally, the Convention on Physical Protection of Nuclear Materials.

6.1.1 The Non-Proliferation Treaty

The most central instrument is the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) from 1968.[4] The NPT centres on a bargain. Non-nuclear weapon States foreswear not to develop nuclear weapons. In exchange, they will have access to technology for civil nuclear energy. This bargain is manifested in the NPT's three 'pillars'.

The first pillar is the 'non-proliferation' pillar. It prohibits the spread of nuclear weapons. The NPT imposes different obligations on nuclear-weapon states (NWS) and non-nuclear weapon states (NNWS). A 'NWS' is defined as a state that has 'manufactured and exploded a nuclear weapon or other nuclear explosive device prior to January 1, 1967'.[5] Only five countries fit into this definition: the United States, Russia, China, the UK, and France.[6] All other countries are defined as 'NNWS', that is, states that have *not* exploded a nuclear device prior to this

[3] See, for example, Joseph S. Nye, 'Maintaining a Nonproliferation Regime' (1981) 35 *International Organization* 15–38.

[4] 1968 Treaty on the Non-Proliferation of Nuclear Weapons, London, Moscow, and Washington, D.C., 1 July 1968, in force 5 March 1970, INFCIRC/140, 729 UNTS 161 / [1973] ATS 3 / 7 ILM 8809 (1968). The NPT has more than 190 signatories. Originally, the NPT had a limited duration of 25 years. In 1995, the Parties decided to extend the Treaty indefinitely. The NPT is reviewed at review conferences every five years, where the State Parties can express their understanding of the NPT provisions. For a more detailed overview and historical account, see e.g., Daniel H. Joyner, *Interpreting the Nuclear Non-proliferation Treaty* (Oxford: Oxford University Press, 2011); and Mohamed I. Shaker, *The Nuclear Non-Proliferation Treaty: Origin and Implementation 1959–1979* (Oceana: London, 1980).

[5] Article IX.3 of the NPT.

[6] The US exploded a nuclear device in 1945, the Soviet Union in 1949, the UK in 1952, France in 1962, and China in 1964.

date.[7] While the NWS undertake 'not to transfer […] nuclear weapons or other nuclear explosive devices',[8] the NNWS undertake 'not to receive the transfer of nuclear weapons or nuclear explosive devices […], not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices'.[9] The second pillar concerns the peaceful use of nuclear energy. The NPT states that all Parties to the Treaty have an 'inalienable right' to develop research, production and use of nuclear energy for peaceful purposes.[10] The third pillar concerns 'disarmament'. The Treaty sets up an obligation for contracting parties to negotiate 'measures relating to cessation of the nuclear arms race'.[11]

The NPT also establishes a system of nuclear 'safeguards' under the responsibility of the IAEA.[12] Under this system, states are obliged to conclude so-called 'safeguards agreements' with the IAEA. The purpose is to verify that nuclear material is not diverted to nuclear weapons. The IAEA has concluded safeguards agreements with more than 170 countries. The IAEA uses different verification measures, including onsite inspections and monitoring. The agreements are of three different types: (1) comprehensive safeguards agreements; (2) voluntary offer agreements; and (3) item specific agreements. All the NNWS are obliged to conclude 'comprehensive' safeguards agreements.[13] Under such agreements, the IAEA has a right and an obligation to apply

[7] Some countries are confirmed (or believed) to possess nuclear weapons: India, Pakistan, North Korea, and Israel. These countries are not NPT signatories. Even if they would accede to the NPT, they would not be classified as 'NWS' because they exploded a nuclear weapon only after 1967. North Korea acceded to the NPT in 1985, but announced its withdrawal in 2003.
[8] Article I of the NPT.
[9] Ibid., Article II.
[10] Ibid., Article IV.1.
[11] Ibid, Article VI. The scope of this obligation is disputed. While some claim that it imposes an obligation of disarmament, other argues that it simply obliges states to 'negotiate in good faith'. The International Court of Justice interpreted this as: 'an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control' (Advisory opinion on the Legality of the Threat or Use of Nuclear Weapons, 8th of July 1996).
[12] Article III of the NPT. The IAEA's Statute authorises the IAEA to 'establish and administer safeguards […] at the request of the parties to any bilateral or multilateral arrangement, or at the request of a State, to any of that State's activities in the field of atomic energy'. See Article III and XII of the Agency's Statute. The Statute was approved on 23 October 1956 by the Conference on the Statute of the International Atomic Energy Agency. It came into force on 29 July 1957.
[13] Article III.1 of the NPT. The comprehensive safeguards agreements all follow the same structure, which is found in Document INFCIRC/153 (Corr.).

safeguards on all nuclear materials in a state.[14] The 'voluntary offer' agreements are of more limited scope: they exclude facilities with national security significance. The IAEA only concludes such agreements with the NWS. Finally, 'item specific safeguards agreements' cover only specified nuclear material, facilities and equipment. The IAEA concludes such agreements with states that are not parties to the NPT.

The Gulf War in the 1990s exposed some shortcomings of the IAEA safeguards system. Iraq had pursued a nuclear weapons programme despite the fact that it had signed the NPT and concluded a comprehensive safeguards agreement with the IAEA. To strengthen the safeguard system, the IAEA designed a 'Model Additional Protocol' (1997).[15] It gives the IAEA a broader competence to verify both declared and undeclared nuclear activities. The IAEA inspectors may, for example, take environmental samples in order to detect undeclared nuclear activities.[16] The IAEA has to conclude an agreement with each State Party on a Model Additional Protocol. At present, there are 124 Additional Protocols in force between the IAEA and State Parties (including the Euratom).[17] Many countries have not yet concluded an Additional Protocol.

6.1.2 The Nuclear Export Regimes

The NPT obliges contracting parties not to provide nuclear materials ('source or special fissionable material') or certain kinds of equipment ('especially designed or prepared for the processing, use or production of special fissionable material') to any NNWS, unless subject to safeguards.[18] In short, states may not trade in

[14] Some countries only have small quantities of nuclear materials. They may conclude a 'Small Quantities Protocol' with the IAEA. The existence of such a protocol means that not all the procedures in the comprehensive safeguard agreement have to be applied.
[15] The Protocol Additional to Agreement(s) between State(s) and the IAEA for the Application of Safeguards, IAEA, INFCIRC/540.
[16] Under the Additional Protocol, the safeguards also apply to research and development activities related to the nuclear fuel cycle, to specified manufacturing activities, and to exports and imports of non-nuclear material and equipment, specified in the Nuclear Suppliers Group Trigger List. Any state with a safeguards agreement may conclude an additional protocol.
[17] As of 6 August 2014. See the IAEA's website.
http://www.iaea.org/safeguards/documents/AP_status_list.pdf
[18] Article III.2 of the NPT.

nuclear items unless safeguards are applied. But the NPT does not provide an exact definition of what kind of items shall be subject to safeguards. Therefore, in 1971, a group of supplier countries set up the so-called Zangger Committee.[19] Its objective was to reach a common understanding on how to interpret and implement the NPT rules on export controls. The Zangger Committee published a so-called 'trigger list', i.e., a list of items that shall be subject to IAEA safeguards if supplied by a NPT State to any NNWS.[20]

When India exploded a nuclear device in 1974, it became clear that the international export regime did not work. As a response, some nuclear supplier countries created the Nuclear Suppliers Group ('NSG' or 'the London Club').[21] In 1978, the NSG adopted 'Guidelines for Nuclear Transfers'.[22] It covers items especially designed or prepared for nuclear activities (i.e., materials, equipment, and technologies). The NSG members have to follow the guidelines (including a 'trigger list') and implement national legislation, such as national export licensing regulations, enforcement measures, and penalties for violations. The NSG members may not trade with nuclear material and technologies with governments that are not subject to safeguards. A recipient state has to give a formal assurance that items will not be diverted to unsafeguarded nuclear fuel

[19] The Zangger Committee is named after its first chairman, Claude Zangger, from Switzerland. It is an informal forum with 36 members and with the European Commission as a permanent observer. The members are: Argentina, Australia, Austria, Belgium, Bulgaria, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Republic of Korea, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, the Slovak Republic, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom, and the United States.

[20] The items on the list 'trigger' the application of Safeguards. The list was published in 1974 (INFCIRC/209, IAEA) and it has been amended several times. The list is today incorporated as Annex II in the IAEA Model Additional Protocol to the NPT. It is thus only legally binding for those States that have signed an Additional Protocol. The Committee has also created guidelines governing the export of items to NNWS that are not parties to the NPT.

[21] The NSG was established in 1975. France, Germany and the UK were among the founder members. Today, the NSG is comprised of 46 nuclear supplier states. The European Commission is a permanent observer. The members are: Argentina, Australia, Austria, Belarus, Belgium, Brazil, Bulgaria, Canada, China, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Kazakhstan, South Korea, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, and the United States. For an overview, see 'The Nuclear Suppliers Group: Its Origins, Role and Activities', INFCIRC/539/Rev.3.

[22] INFCIRC/254, Part 1.

cycle or nuclear explosive activities.[23] The recipient state also has to conclude a comprehensive safeguards agreement with the IAEA. The decision on export is taken at the national level. There is a close cooperation between the NSG and the Zangger Committee, and there are some overlaps in their activities.[24]

In 1992, the NSG adopted a second set of guidelines: 'Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Materials, Software and Related Technology'.[25] The guidelines concern items and technologies that can have both nuclear and non-nuclear applications ('dual-use'). It was adopted after Iraq's clandestine nuclear weapon's programme had been revealed. As mentioned, Iraq had pursued a nuclear weapons programme despite being a party to the NPT.[26] The transfer of 'dual-use items' had not previously been regarded as posing a risk, but it appeared that Western countries had contributed to Iraq's nuclear weapons programme by exporting such items.

6.1.3 'Specialised' International Treaties and Nuclear Weapon-Free Zones

There is a range of international treaties that supplement the NPT. The most important of these 'specialised' treaties are the 'Partial Test Ban Treaty' (1963), which bans nuclear tests; the 'Seabed Treaty' (1972), which prohibits the emplacement of nuclear weapons on the seabed and ocean floor; and the 'Comprehensive Nuclear Test Ban Treaty', which bans nuclear weapon explosions, as well as the production of fissile material, save for peaceful use.[27]

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[23] The NSG guidelines include a 'catch-all' mechanism. This provides a basis to control nuclear-related items that are not on the trigger list.

[24] The Zangger Committee and NSG cooperate in updating their trigger lists. There are some important differences between the two groups. The Zangger Committee is closely connected to the NPT; it was set up to reach an understanding on how to implement the NPT export controls. Therefore, only NPT States can participate. There is no such link between the NPT and NSG; the NSG members have to adhere to a non-proliferation treaty, but not necessarily to the NPT. The NSG list is wider in scope than the Zangger Committee trigger list. While the Zangger list only covers equipment and material, the NSG list also covers technology for the development, production and use. In addition, the NSG lists dual-use items and the NSG Guidelines also set up strict export conditions. The Guidelines require full-scope safeguards in the recipient state as a condition of supply and they also apply to so-called re-transfers; a recipient state has to accept IAEA safeguards on all their current and future nuclear activities.

[25] INFCIRC/254, Part 2. The title changed in the year 2000, when 'software' was added to the title.

[26] Hans Blix, *Disarming Iraq* (New York: Pantheon Books, 2004).

[27] Comprehensive Nuclear Test Ban Treaty (CTBT), 9 October 1996, 35 ILM 1439 (1996), not yet in force. It will not enter into force until all states included in Annex II of the Treaty have ratified

There are also some international coordination efforts that should be mentioned, including the G8 Global Initiative to Combat Nuclear Terrorism, the Proliferation Security Initiative, and the low-enriched uranium bank organised by the IAEA.[28] In addition, there are some important bilateral treaties.[29]

A few words also need to be said about nuclear weapon-free zones (NWFZs). A NWFZ is a regional arrangement that bans nuclear weapons from a geographic area. The UN Resolution 3472 defines a NWFZ as: '[A]ny zone, recognized as such by the United Nations General Assembly, which any groups of states, in the free exercise of their sovereignty, have established by virtue of a treaty or convention'. A NWFZ prohibits the development, manufacturing, possession, and acquisition of nuclear weapons, nuclear tests, and deploying nuclear weapons on the territories of the states parties.[30]

There are some important links between the NWFZs and the NPT.[31] The NWFZs adopt the NPT distinction between nuclear weapon states (NWS) and non-nuclear weapon states (NNWS). The NWFZs receive so-called 'negative security assurances' from the five NWS. The NWS pledge not to introduce nuclear

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it, i.e., all countries with a nuclear power programme or with research reactors (44 states). All such states have signed it, with the exceptions of the North Korea, India, and Pakistan. Six states have signed but not ratified it: China, Egypt, Indonesia, Iran, Israel, and the United States. There are also some proposed treaties in this field, e.g., the 'Fissile Material (Cut-Off) Treaty', which sets up a quantitative limit on the amount of nuclear material available for weapons use; and the 'Nuclear Weapons Convention', which prohibits the development, testing, production, stockpiling, transfer, use and threat of use of nuclear weapons.

[28] Countries that do not have enrichment capabilities can obtain fuel for their civil nuclear programmes. This reduces the incentives for countries to build enrichment capabilities, which may imply a proliferation risk. Countries with enrichment capabilities can donate enriched fuel to the bank. In 2010, the IAEA Board of Governors authorised the IAEA Director General to establish an IAEA fuel bank. One requirement for supply from the bank is that the State is experiencing a supply disruption and is unable to secure the supply from the commercial market. The State must also have concluded a comprehensive safeguards agreement with the IAEA. See IAEA's website: http://www.iaea.org/OurWork/ST/NE/NEFW/Assurance-of-Supply/iaea-leu-bank.html.

[29] E.g., Treaty between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START), Prague, April 8, 2010.

[30] Abdelwahab Biad, 'Nuclear-Weapon-Free Zones: Challenges and Prospects for Non-Proliferation' (1996) 58 *Nuclear Law Bulletin* 9. The common characteristics of NWFZs were elaborated in the 1999 UN Disarmament Commission Report on the Objectives, Purposes, Principles, and Guidelines for Establishing NWFZs, *General Assembly, Official Records Fifty-fourth session Supplement* No. 42 (A/54/42).

[31] Article VII of the NPT explicitly recognises the right for any group of States to conclude NWFZs: 'Nothing in this Treaty affects the right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories'.

weapons into the Zone, and not use or threaten to use nuclear weapons against members of the Zone.

In the 1950s, there were some initiatives to create a NWFZ in Europe,[32] but these initiatives were never realised. The first NWFZ was created in the Antarctic (1959), followed by a treaty on the Outer Space (1967). Other NWSZs are in Latin America and the Caribbean, adopted following the Cuban Missile Crisis in 1962 (the Tlatelolco Treaty, 1969), South Pacific (Rarotonga Treaty, 1986); Southeast Asia (Bangkok Treaty, 1997); Africa (Pelindaba Treaty, 2009); Central Asia (The Treaty of Semipalantinsk, 2009), and the Treaty on the Seabed (1971). The creation of a potential NWFZ in the Middle East has been discussed for many years.[33]

6.1.4 Nuclear Security: Non-Proliferation Re-Defined

In recent decades, the concept of nuclear non-proliferation has been broadened to include anti-terrorism measures. With the emergence of international terrorist groups, the traditional focus of non-proliferation has somewhat shifted from states to non-state actors. The fear is that terrorist groups will get hold of nuclear weapons ('nuclear terrorism').[34] This has prompted the international community to adopt instruments to counter this new threat. Two important

[32] In 1956, the Soviet Union suggested at the UN General assembly the creation of a NWFZ in Central Europe. Two years later, the Polish government suggested creating a NWFZ that would include Poland, Czechoslovakia, West Germany and East Germany ('the Rapacki plan', named after Adam Rapacki, the then Polish foreign minister). There were also other proposals from Sweden, Finland and Romania to create a European NWFZ. See James Martin Center for Nonproliferation Studies, available at http://cns.miis.edu/nwfz_clearinghouse/.

[33] See Paolo Foradori and Martin B. Malin (eds.), 'A WMD-Free Zone in the Middle East: Regional Perspectives', Discussion Paper 2013-09, Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, November 1, 2013.

[34] There is a distinction between 'nuclear' terrorism and 'radiological' terrorism. 'Nuclear terrorism' refers to the use of nuclear weapons. 'Radiological terrorism' refers to attacks on a nuclear facility that could lead to a release of radiation or acquisition of radioactive material to build a 'dirty bomb'. See 'Nuclear security after Fukushima', The International Institute for Strategic Studies (IISS) Strategic Comments, Volume 17, Comment 26 – August 2011.

instruments are UN Resolution 1540[35] and the International Convention for the Suppression of Terrorist Bombings.[36]

Another important instrument is the Convention on Physical Protection of Nuclear Material.[37] It was adopted in 1979 under the aegis of the IAEA. It was primarily designed to prevent theft. The Convention was adopted at a time when international terrorism was not a known phenomenon. Although it does not refer to counter-terrorism, it is now perceived as a counter-terrorism instrument and as an instrument that aims to prevent international terrorism organisations from acquiring nuclear materials. The IAEA points out that 'the attacks of 11 September 2011 redefined the context of nuclear security'.[38] Thus, 'counter-terrorism' is now an objective of nuclear security. It has also become a part of 'non-proliferation', which traditionally deals with the behaviour of states.

The Convention on Physical Protection addresses the risk and misuse of nuclear materials that are originally intended for civil uses.[39] It has three focus areas. The first area concerns the physical protection of nuclear material during international transport. States are obliged not to undertake or authorise international transports unless assurances are provided that protection will be provided at levels prescribed by the Convention. The second area concerns the criminalisation of offences. States must make certain acts into punishable offences under national law (e.g., theft or robbery of nuclear materials, threat to use nuclear material to cause death, attempts and participation). Further, States have to establish jurisdiction over such offences and they must detain alleged

[35] The UN Security Council Resolution 1540 (2004). It obliges all states to take concerted actions to prevent the acquisition of WMD by non-State actors.
[36] The 1997 International Convention for the Suppression of Terrorist Bombings, New York, 15 December 1997, in force 23 May 2001 (Article 22), 2149 UNTS 256 / [2002] ATS 17 / UN Doc. A/RES/52/164. The Convention criminalises the intentional use of explosives with the intention to kill, to injure, or to cause extensive destruction to compel a government or an international organisation to do or to abstain from doing some act. For an overview, see Samuel M. Witten, 'The International Convention for the Suppression of Terrorist Bombings' (1998) 92 *The American Journal of International Law* 774–81.
[37] 1979 Vienna Convention on the Physical Protection of Nuclear Materials, Vienna, 26 October 1979, in force 8 February 1987, 1456 UNTS 246/18 ILM 1419 (1980)/[1987] ATS 16, INFCIRC/274/Rev.1 May 1980.
[38] See 'IAEA Nuclear Security: Achievements 2002–2011', IAEA, Austria, March 2012.
[39] In the 1970s, the IAEA started to develop its first recommendations and guidelines for the physical protection of nuclear material. Until then, theft or unauthorised access to nuclear material or facilities had not been recognised as a problem.

offenders for the purpose of prosecution or extradition.[40] The third area concerns international cooperation and information exchange. States are obliged to cooperate in the recovery of stolen nuclear material.[41] States are also required to make known to each other (or through the IAEA) their central authority and point of contacts responsible for the security of nuclear materials. Moreover, States are obliged to provide assistance in connection with criminal proceedings.[42] The Convention only concerns international activities, i.e., states are not required to protect nuclear materials for domestic use, storage and transport.

In 2005, the State Parties adopted an amendment to the Convention on Physical Protection,[43] which, *inter alia*, extends the scope of protection to nuclear facilities and materials in the domestic setting. The Amended Convention can be described as a counter-terrorism instrument.[44] The preamble expresses concern over acts of terrorism and it also refers to other counter-terrorism measures.[45] It recognises that 'physical protection plays an important role in supporting nuclear non-proliferation and counter-terrorism objectives'. The Amended Convention has not yet entered into force.

With this brief account of the international legal framework now behind us, we will turn to the Euratom and the EU. We shall examine how the EU legal framework relates to the international framework. More importantly, we shall outline the functional division between the Euratom and the EU in this field.

[40] See Article 10 of the Convention on Physical Protection of Nuclear Material.
[41] Ibid., Article 5.
[42] Ibid., Article 13.
[43] The Amendment will not enter into force until two-thirds of the State Parties to the Convention have ratified it. The amendment adds 'Nuclear Facilities' to the title. Thus, the amended Convention title is: Convention on the Physical Protection of Nuclear Material *and Nuclear Facilities*, Vienna, 8 July 2005, not yet in force. Emphasis added.
[44] It should be noted that the Amended Convention was initiated before 9/11.
[45] Declaration on Measures to Eliminate International Terrorism, annexed to General Assembly Resolution 49/60 of 9 December 1994.

6.2 The Euratom and the Safeguards Activities

As previously stated, the Euratom Treaty is not a non-proliferation instrument in the following sense: it does not prohibit military use of nuclear materials and non-proliferation is not among its objectives.[46] It concerns economic aspects of nuclear energy, rather than non-proliferation aspects. Nevertheless, the Treaty contains provisions that can be used to this effect. The Euratom shall 'make certain that nuclear materials are not diverted to purposes other than those for which they are intended' (Article 2.e Euratom). The Euratom sets up its own system of safeguards, very similar to the one under the IAEA, briefly mentioned above.

In fact, the Euratom safeguards system was the first international system.[47] It predates the IAEA safeguards system, which was created a decade later by the adoption of the NPT. The Euratom safeguards system was created mainly to make it possible to import nuclear materials from the United States, the world's leading supplier of fissile material in the 1950s. The United States required that its exported materials would only be used for civil purposes and that the exports could be tracked. They therefore imposed unilateral inspection rights in all their bilateral agreements (except with Canada and the UK).[48] For some, a clause on unilateral inspection rights would equal an infringement of the Euratom's sovereignty. But with a safeguards system in place, such a clause could be avoided; the Euratom would have the direct responsibility. Undeniably, the Euratom safeguards system was also a way of preventing Germany from developing nuclear weapons; no country of the original six would be able to *covertly* develop nuclear weapons. In fact, the Treaty explicitly *exempts* from the

[46] As we have seen, the NPT allows the use of nuclear weapons when it comes to NWS, so perhaps this categorisation is not that accurate.
[47] For an overview of the development of the Euratom Safeguards system (until 1990), see Darryl A. Howlett, *Euratom and Nuclear Safeguards* (Macmillan: Basingstoke, 1990). See also Anja Lindroos, 'The Role of Euratom in the Non-Proliferation Regime' (1997) 8 *Finnish Year Book of International Law* 307; Stephen Gorove, 'First Multinational Atomic Inspection and Control System at Work: Euratom's Experience' (1965) 18 *Stanford Law Review* 160–86; and Bharat Patel and Peter Chare, 'Fifty Years of Safeguards under the Euratom Treaty – a Regulatory View' (2007) 36 *ESARDA Bulletin*.
[48] Allan S. Nanes and Reuben Efron, 'The European Community and the United States: Evolving Relations' (1960) 22 *The Review of Politics* 179–80.

safeguard system materials declared for military use.[49] Further, it was later confirmed in the *Jason* Case that nuclear energy for military application falls outside the *entire* scope of the Treaty.[50]

6.2.1 The Safeguards Provisions

The safeguards provisions are laid out in Title II, Chapter 7 Euratom. The Commission has two main tasks, which are laid out in Article 77. First, the Commission is to satisfy itself that nuclear materials[51] are 'not diverted from their intended uses as declared by the users'. Second, it must assure that 'any particular safeguarding obligations assumed by the Community under an agreement concluded with a third State or an international organisation are complied with'.[52] This reflects the very rationale behind the system: it guarantees its trading parties that the provisions are complied with.

Articles 78 to 85 then details how these two tasks shall be achieved. Nuclear operators (e.g., in the nuclear industry, research centres, or medical institutes) are required to give the Commission information on their facilities. They have to

[49] Article 84(3) reads: 'The safeguards may not extend to materials intended to meet defence requirements which are in the course of being specially processed for this purpose or which, after being so processed, are, in accordance with an operational plan, placed or stored in a military establishment'.

[50] Case C-61/03, *Commission v. United Kingdom* [2005] ECR I-2477. The case is discussed under Chapter 4, 'Radiation Protection'. The AG noted that it was clear from Article 84(3) Euratom that not all defence-related materials are exempted from the safeguards, but only those that are 'in the course of being specially processed for [defence purposes] or which, after being so processed are, in accordance with an operational plan, placed or stored in a military establishment'. The AG then pointed out that this implied that the safeguards provisions would seem to apply to those defence-related materials not covered by the wording of Article 84(3). See ibid., Opinion of AG Geelhoed, para 85. Following the Court's judgment, the specific exemption in Article 84(3) seems to have lost its significance.

[51] The Treaty here refers to 'ores, source materials and special fissile materials'. These materials are defined in Article 197 Euratom.

[52] According to Article 77.b Euratom, the Commission must also assure that the supply provisions (Title II, Chapter 6 on Supplies) are complied with. The Commission can use the means provided in the safeguards provisions to control that the Member States also comply with their obligations under the supply provisions. However, this reading seems to be contradicted by Article 84(2) Euratom which states that '[t]he scope of and procedure for the safeguards and the powers of the bodies responsible for their application shall be confined to the attainment of the objectives set out in this Chapter'. In any case, Article 77.b Euratom establishes a link between the supply provisions and the safeguards provisions. According to Grunwald, this means that the Commission has to exert control over the Supply Agency, and that this means that the Agency has to be kept separated organisationally from the Commission. See Jürgen Grunwald, *Das Energierecht der Europäischen Gemeinschaften: EGKS-EURATOM-EG: Grundlagen, Geschichte, geltende Regelungen* (Berlin: De Gruyter Verlag, 2003), pp. 254–5.

declare 'the basic technical characteristics' of their installations[53] and provide information on nuclear material in possession. They are required to keep and produce operating records in order to permit accounting for used or produced nuclear materials and for the transport of such materials.[54] The operators shall notify the Member State authorities of the communications they make to the Commission.

The Treaty also provides that 'the nature and the extent of the requirements' shall be defined in a Regulation.[55] In 1959, the Euratom adopted two such Commission Regulations.[56] They were replaced in 1976, following the Euratom's safeguards agreement with the IAEA,[57] and again in 2005, in order to implement the Commission's reporting requirements under the IAEA Additional Protocol.[58] The Commission has also adopted recommendations and guidelines, which clarifies the application of the safeguards.[59]

A central aspect of the safeguards system is the use of inspections. Article 81 Euratom provides that the Commission may send inspectors into the territories

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[53] Article 78 Euratom.
[54] The Treaty here refers to ores, source materials and special fissile materials. Regarding the transport, the treaty merely refers to 'source materials and special fissile materials' (Articles 78–79 Euratom). According to Article 84(1), 'no discrimination shall be made on grounds of the use for which ores, source materials and special fissile materials are intended'.
[55] Such a regulation shall be 'made by the Commission and approved by the Council'.
[56] Euratom Commission Regulation No 7 established the implementing procedures for the declarations required by Article 78 of the Treaty, OJ 1959 No. 15, 12 March 1959, p. 298; and Euratom Commission Regulation No 8 defining the nature and the extent of the requirements referred to in Article 79 of the Treaty, OJ 1959 No. 34, 29 May 1959, p. 651. English special edition: Series I Chapter 1959–1962 p. 27. See also Communication on the numbering of EAEC Regulations, OJ 1959 No. 34, 29 May 1959, p. 649.
[57] Commission Regulation (Euratom) No 3227/76 of 19 October 1976 concerning the application of the provisions on Euratom safeguards, OJ 1976 No. L363, 31 December 1976, p. 1; Commission Regulation (Euratom) No 2130/93 of 27 July 1993 amending Regulation (Euratom) No 3227/76 concerning the application of the provisions on Euratom safeguards OJ 1993 No. L191, 31 July 1993, p. 75; and Commission Regulation (Euratom) No 220/90 of 26 January 1990 amending Commission Regulation (Euratom) No 3227/76 of 19 October 1976 concerning the application of the provisions on Euratom safeguards, OJ 1990 No. L22, 27 January 1990, p. 56.
[58] Commission Regulation (Euratom) No 302/2005 of 8 February 2005 on the application of Euratom safeguards, OJ 2005 No. L54, 28 February 2005, p. 1.
[59] Commission Recommendation 2009/120/Euratom of 11 February 2009 on the implementation of a nuclear material accountancy and control system by operators of nuclear installations, OJ 2009 No. L41, 12 February 2009, p. 17; and Commission Recommendation of 15 December 2005 on guidelines for the application of Regulation (Euratom) No 302/2005 on the application of Euratom safeguards, OJ 2006 No. L28, 1 February 2006, p. 1. The preamble clarifies that the guidelines should not create any legal rights or obligations. The preamble further 'recommends' that the guidelines should be followed when applying the Regulation.

of Member States.[60] The inspectors' job is to verify that nuclear materials are not diverted from their intended use. They shall have access to 'all places and data and to all persons who […] deal with materials, equipment or installations' subject to safeguards. The responsibility for the safeguards is currently under Directorate Nuclear Safeguards, which is a part of DG Energy. In 2013, 163 inspectors were working for the Euratom and 1300 inspections were carried out.[61]

In case an inspection is opposed, the Commission can apply to the President of the ECJ for an order to make the completion of the inspection compulsory. The President shall give a decision within three days. If there is a 'danger in delay', the Commission itself may issue a written order to proceed with the inspection. This written order needs subsequent approval of the President of the Court. The Member States are not formally involved until the order or decision has been issued. The Member State authorities are then obliged to ensure that the inspectors have access to the places specified.

It is interesting to compare the safeguards system with the competition rules under the TFEU. Under the competition rules, the Commission shall investigate cases of 'suspected infringement' (Article 105 TFEU). But under the Euratom safeguards, there is no such requirement – inspections may take place even if there is no suspected infringement. Thus, the Commission's investigatory power is stronger under the Euratom than under the competition rules. Another difference is the reach of the Commission's power. It controls the nuclear operators directly, including nuclear operators that are completely State-owned.

[60] It is the Commission that recruits the inspectors (Article 82 Euratom).
[61] Report on the Implementation of Euratom Safeguards in 2013, April 2014, Ref. Ares(2014)1534607 - 14/05/2014. The number of inspections is slowly decreasing. See ibid. Cf. Grunwald, who wrote in 2003 that roughly 200 inspectors and 2000 inspections were carried out each year. See Grunwald, Das Energierecht der Europäischen Gemeinschaften, p. 253.

6.2.2 Enforcement and the *ANF* Case

There are two different ways to enforce the Euratom safeguards provisions: 1) by an infringement procedure that is directed to the Member State (Article 82); and 2) by sanctions of the operators (Article 83). Let us start with the infringement procedure. As the Treaty points out, this is a special infringement procedure that derogates from the general procedure in Articles 258 and 259 TFEU. It works in the following way. The Commission may issue a Directive, which includes a time limit, calling on the Member State to take all measures necessary to bring the infringement to an end. If the Member State does not comply, the Commission or any Member State concerned may directly refer the matter to the Court. Unlike the general infringement procedure (under the TFEU), the Commission does not deliver a reasoned opinion and there is no opportunity for the State concerned to submit its observations. This specific procedure reflects the urgency by which the Treaty founders viewed an infringement in this area.

The Commission may also impose sanctions in the event of an infringement on the part of persons or undertakings. These can take the form of (a) a warning; (b) the withdrawal of financial or technical assistance; (c) the placing of the undertaking under the administration of a person or board; or (d) the withdrawal of nuclear materials. The sanctions are in order of severity, with the withdrawal of nuclear material as the most severe. Over the years, the Commission has issued some warnings.[62] Other types of sanctions are less common.[63] Further, the Commission may make any recommendations to Member States concerning laws or regulations that are designed to ensure

[62] See, for example, the warning issued by the Commission addressed to BNG Sellafield Limited. In 2006, BNG Sellafield Limited brought an action to the Court to annul that decision. It submitted, *inter alia*, that the Commission lacked the competence to adopt the decision and the measures imposed. In 2009, the applicant informed the Court that it wished to discontinue proceedings. See Case T-121/06, *British Nuclear Group Sellafield* v. *Commission*, OJ 2006 No. L255, p. 5.

[63] The sanction 'withdrawal of financial or technical assistance' would only come into issue where an undertaking has received such assistance under either Article 6; 46.2.f; or Article 174.2 Euratom.

compliance with the obligations under the safeguards chapter.[64] The Member States shall ensure that the sanctions are enforced.[65]

The Court addressed the question of sanctions in Case C-308/90, *Advanced Nuclear Fuels* v. *Commission*.[66] The facts are briefly the following. In 1990, a German company, 'ANF-Lingen', had by mistake exported nuclear materials from Germany to its parent company in the United States. The export had taken place without prior declaration to the Commission and without notification in ANF-Lingen's accounting and operating records. As soon as the incident was discovered, ANF-Lingen had notified the Commission and the Euratom Supply Agency. The Commission had then decided to impose a sanction. The company was to be placed under administration for a period of four months[67]; the second most severe sanction.

The ANF-Lingen brought an action to the ECJ for annulment of the Commission decision.[68] The ANF-Lingen pleaded that it had not breached its obligation under the Euratom Treaty because the export was attributable to a mistake; this could not be classified as a serious breach of the obligations under Article 79 Euratom. It also argued that the nuclear material had at all times been under the authority of ANF-Lingen and its parent company in the United States. The Court rejected

[64] See Article 83.3 Euratom.
[65] Article 83 Euratom further states that a Commission decision, requiring the surrender of materials shall be enforceable and that the decisions 'may be enforced in the territories of Member States in accordance with Article 164 Euratom'. According to Article 83.2, by way of derogation from Article 157 Euratom, appeals brought before the ECJ against a Commission decision which imposes any of the sanctions shall have suspensory effect. The ECJ may order that the decision be enforced forthwith. This treaty article also states that there shall be a legal procedure to ensure the protection of interests.
[66] Case C-308/90, *Advanced Nuclear Fuels* v. *Commission* [1993] ECR I-309 (hereinafter 'ANF Lingen').
[67] See Commission Decision 90/413 of 1 August 1990 relating to a procedure in application of Art. 83 of the Euratom Treaty (XVII – ANF Lingen), OJ 1990 No. L209, 8 August 1990, p. 27, which placed ANF Lingen, as regards part of its operation, under the control of a board of administrators for a period of four months; and Commission Decision 90/465 of 20 August 1990 relating to the appointment of a board responsible for implementing Commission Decision 90/412/Euratom, OJ 1990 No. L241, 4 September 1990, p. 14.
[68] Article 146 Euratom, repealed by the Lisbon Treaty. The Commission requested the Court pursuant Article 83(2) Euratom to order the immediate enforcement of Decisions 90/413 and 90/465. See Order of the Court of 7 December 1990, Case C-308/90, [1990] ECR I-04499.

that plea. It held that the fact that the export in question took place inadvertently did not affect the finding that the Commission had not first been informed.[69]

ANF-Lingen also pleaded that the sanction could not be imposed in respect of an infringement that had already ceased.[70] The Court also rejected this plea. As Advocate General Jacobs pointed out,[71] the applicant had drawn an analogy with the sanctions for the breach of competition rules in the EEC Treaty. The applicant argued that the imposed sanction should be compared to 'penalty payments' because they were designed to put an end to a continuing breach rather than past infringement (cf. 'fines'). The Court did not explicitly discuss this analogy. It held that it was sufficient to observe that the Euratom Treaty does not distinguish between existing infringements and those that have ceased. The Court also pointed out that Article 83 Euratom ensures the effectiveness of the safeguards provisions.[72]

Finally, the ANF-Lingen had pleaded that the Commission's decision was disproportionate and argued for a less severe sanction.[73] It claimed that the Commission had not been prevented from carrying out its supervisory task.[74] The Court stated that 'any infringement of those rules by an undertaking constitutes a serious infringement'.[75] The Court pointed out that it is 'apparent from the approach adopted in certain national legal systems' that it is appropriate to impose the severest sanction available in cases where various infringements notionally overlap, as in this case. It also pointed out that the sanction enables measures to be imposed to ensure that future infringements are not committed. ANF-Lingen's cooperative attitude could not be invoked in order to challenge the need for a sanction.

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[69] *ANF Lingen*, paras 12–18.
[70] Ibid., paras 19–22.
[71] Case C-308/90, *Advanced Nuclear Fuels* v. *Commission* [1993] ECR I-309, Opinion of AG Jacobs.
[72] *ANF Lingen*, para 21.
[73] Ibid., paras 23–30.
[74] ANL-Lingen pointed out that the Commission is vested with wide supervisory powers enabling it to send inspectors into undertakings to ensure compliance with the provisions of Article 77 and also that the measures taken by ANF-Lingen immediately following the discovery of the incident made it unnecessary to place the undertaking under administration.
[75] Ibid., para 26.

This case illustrates that the Euratom safeguards provisions are very much 'alive' and that a breach of the provisions can have severe consequences for companies. In order to understand how the Euratom safeguards operate, the international IAEA safeguards system has to be brought into the picture. The next section discusses the relationship between Euratom's safeguards system and the IAEA safeguards system.

6.2.3 The Relationship between Euratom and IAEA Safeguards

The NPT provides that its requirements can be met by states either individually or together with other states.[76] The Euratom is not a party to the NPT, but the Euratom meets the NPT requirements by a safeguards agreement with the IAEA, concluded in 1973.[77] The Euratom-IAEA safeguards agreement is a mixed agreement where the Member States are parties alongside the Euratom and the IAEA.[78] It is a so-called comprehensive safeguards agreement, which, as previously explained, implies that all nuclear material and all nuclear activities are subject to IAEA safeguards. Some countries had concluded safeguards agreements with the IAEA before they acceded to the EU. When these countries entered as EU Member States, the agreements were suspended, and the Euratom-IAEA agreement entered in their place. The UK and France, which have nuclear weapons, are not parties to the agreement (recall that comprehensive safeguards agreements are only for NNWS). They have instead concluded

[76] Article III.4 of the NPT.

[77] Agreement Between the Kingdom of Belgium, the Kingdom of Denmark, the Federal Republic of Germany, Ireland, the Italian Republic, the Grand Duchy of Luxembourg, the Kingdom of the Netherlands, the European Atomic Energy Community and the International Atomic Energy Agency in Implementation of Article III, (1) and (4) of the Treaty on the Non-Proliferation of Nuclear Weapons, 14 September 1973, INFCIRC/193. It is based on the INFCIRC/153 Model Agreement. See also Agreement between the Kingdom of Belgium, the Kingdom of Denmark, the Federal Republic of Germany, Ireland, the Italian Republic, the Grand Duchy of Luxembourg, the Kingdom of the Netherlands, the European Atomic Energy Community and the International Atomic Energy Agency in implementation of Article III (1) and (4) of the Treaty on the non-proliferation of nuclear weapons (78/164/Euratom), OJ 1978 No. L51, 22 February 1978, p. 1.

[78] In accordance with Article 102 Euratom, mixed agreements shall not enter into force until they have been ratified by the Member States: '[U]ntil the Commission has been notified by all the Member States concerned that those agreements or contracts have become applicable in accordance with the provisions of their respective national laws'.

separate agreements with the Euratom and the IAEA.[79]

How do the two systems interact? The Euratom-IAEA safeguards agreements connect the global and 'intergovernmental' IAEA system with the regional and 'supranational' Euratom safeguard system. The Euratom safeguards system had been in force for more than 10 years before the NPT and the IAEA's safeguard system. Thus, the Euratom already had its own regional system, and the Euratom Member States wanted to keep it. In the Euratom system, inspectors could serve in the state of their nationality. The Commission assigns inspection staff to duties in their home countries. In the IAEA system, this is not possible. The Euratom-IAEA safeguards agreement was negotiated during the cold war and, at that time, the nationality of the inspectors was a sensitive issue. Some Member States were unwilling to accept IAEA inspections, in particular inspectors from the Soviet Union.[80] They preferred Euratom inspectors from their own countries.

The agreement between the IAEA and the Euratom provided for a special solution to this problem[81]: the Euratom inspectors and the IAEA inspectors work in tandem. The agreement states that the inspectors shall co-operate in implementing the safeguards and they shall avoid 'unnecessary duplication' of safeguards activities.[82] They shall use common equipment. The IAEA's inspection rights are specified in a Protocol attached to the safeguards agreement. The

[79] The UK concluded a safeguards agreement with the Euratom and the IAEA on 6 September 1976. The agreement entered into force on 14 August 1978 Vienna (IAEA INFCIRC/263). France, the Euratom and the IAEA concluded a safeguards agreement in July 1978. The agreement entered into force on 12 September 1981 (IAEA INFCIRC/290). When France concluded this 'tripartite' agreement, it was not yet a party of the NPT, but became as such only in 1992.
[80] See George Bunn, 'Nuclear Safeguards: How Far Can Inspectors Go?' IAEA Bulletin 48/2, March 2007, p. 50.
[81] Bunn explains: 'Most of Euratom's non-nuclear-weapon countries signed the NPT (without ratifying it) so they could participate with other NPT signatories in negotiations with the IAEA on NPT inspections standards. But they refused to ratify the NPT until they were able to negotiate both a satisfactory new IAEA safeguards system for the NPT, and an agreement with the IAEA on how Euratom and IAEA inspectors would cooperate at Euratom facilities. They then negotiated a separate deal with the IAEA on what IAEA inspectors would be permitted to do in Euratom countries. As a result, IAEA safeguards in Euratom countries were carried out largely through IAEA observation of Euratom inspections, or through operation of "joint" inspections.' See Bunn, 'Nuclear Safeguards'.
[82] See Article 1 of the Protocol, attached to Agreement 78/164/Euratom.

Euratom inspection rights are defined directly in the Euratom Treaty.[83] In 1998, the Commission concluded an Additional Protocol with the IAEA. As explained in the section on the international framework, an Additional Protocol provides a wider range of verification tools than the 'basic' comprehensive safeguards agreements. All the Euratom Member States signed it in 1998, and it entered into force in 2004.[84]

For many years, the Euratom carried out inspections under the observation of IAEA inspectors ('observation regime') or jointly with them ('joint inspections'). It appeared that this approach resulted in duplication of inspection efforts. In 1992, the Euratom and the IAEA therefore agreed on the so-called 'New Partnership Approach'.[85] The aim was to make the IAEA/Euratom safeguards system more efficient by improving the arrangements for the application of safeguards. For the IAEA, it was important that the renewed relationship was not about delegation of tasks to the Euratom, but that it would be of 'an equal partnership'.[86] The IAEA would have access to all necessary information, which would enable it to draw independent conclusions. In this way, the IAEA could continue to meet its own safeguards objectives. The European Commission inspectors collect nuclear material accountancy information and then reports to the IAEA. The Euratom acts as a 'primary safeguards authority'. But the IAEA inspectors are still present at certain Euratom inspections. For the IAEA, this system is a way of reducing inspection efforts and costs. In 2010, the IAEA and the Euratom agreed on the application of so-called 'integrated safeguards'.[87] The

[83] This relationship is also clarified by Commission Regulation (Euratom) No 302/2005 of 8 February 2005 on the application of Euratom safeguards, OJ 2005 No. L54, 28 February 2005, p. 1.
[84] Additional Protocol 1999/188/Euratom, OJ No. L67, p. 1. See also Proposal for a Council Decision to approve the conclusion by the Commission of Additional Protocols, COM(1998) 314 final. The Euratom-IAEA Additional Protocol is also a mixed agreement.
[85] For an analysis, see Sven Thorstensen and Kaluba Chitumbo, 'Safeguards in the European Union: the New Partnership Approach' (1995) 37 *IAEA Bulletin* 25–8.
[86] During the negotiations, the IAEA General Director stated: 'We assume that arrangements which would be expressive of a genuine partnership would be acceptable to our membership, while arrangements which would be tantamount to a delegation of our safeguards tasks to our partners would not be acceptable. For the Agency, the principal requirement is that an equal partnership must guarantee the Agency's access to all necessary information and enable it to draw independent conclusions and obtain the necessary degree of assurance and thus meet its own safeguards goals'. Ibid., 26.
[87] See the Press Release Agreement reached on Integrated Safeguards in the European Union, IP/10/11, Brussels, 11 January 2010.

IAEA reduces its level of inspection efforts in countries with unquestioned nuclear non-proliferation credentials, such as the Euratom Member States. Some commentators argue that the Euratom should apply the same approach and that non-proliferation efforts are redundant within the Euratom.[88]

What are the differences between the two systems? The main difference seems to be the focus. While the IAEA focuses on States, the Euratom system focuses on undertakings. As explained, under the Euratom system, the operators may be punished for infringements with sanctions. The Member States' roles are to ensure that sanctions are enforced and that infringements are remedied. The IAEA has no such tools, but rely on traditional intergovernmental compliance mechanisms.

Further, the Euratom system is wider in scope than the IAEA system. Unlike the NPT, the Euratom Treaty does not differentiate between nuclear weapon states and non-nuclear weapon states. Consequently, the Commission has inspection rights in all the Member States, not only in the non-nuclear weapon states. The Euratom Treaty requires safeguards to all civil nuclear material in all Member States. This means that the Commission submits reports to the IAEA for all civilian nuclear materials in designated nuclear facilities in the UK and France. In fact, about 70% of the Euratom budget for safeguards goes to inspecting the reprocessing plants at Sellafield in the UK and at Cap le Hague in France.[89] One might ask why it is desirable at all to inspect a nuclear weapon state? The answer is that it makes the system credible; it allows the Euratom to guarantee its trading partners that the conditions on the use of materials are complied with (Article 77.b Euratom).[90] This was, for example, an important issue when the agreement between the United States and Euratom was renewed in 1996.[91]

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[88] European Parliament Working Paper, 'The European Parliament and the Euratom Treaty: Past, Present, and Future', Energy and Research Series, ENER 114 EN. It should also be pointed out that the Euratom additionally devotes resources to research in the field of safeguards. The Commission supports the IAEA's safeguard system by the Safeguards Support Programme.
[89] These plants are the major sources of fissile materials in the EU.
[90] See H.W. Schleicher, 'Nuclear Safeguards in the European Community: A Regional Approach' (1980) 22 *IAEA Bulletin*.
[91] See Hearing Before the Committee on Governmental Affairs, United States Senate, One Hundred Fourth Congress, Second Session, February 28, 1996.

6.2.4 The Euratom's Added Value

Does the Euratom safeguard system offer any added value? Do we need it? Euratom safeguards may perhaps be seen as less relevant than at the time of the adoption of the Euratom Treaty. The main function seems to be to fulfil international obligations under the NPT and obligations linked to the trade agreements. In addition, some commentators argue that a regional safeguards system may foster political stability between the Member States[92] as the region as a whole develops a generally peaceful attitude. Of course, there is always the question of whether a regional system can be trusted, i.e., if the control really works. But the Euratom would lose its credibility if it were to defend industrial or national interests; it could be perceived as an opponent to the IAEA.[93]

As we have seen, the safeguards provisions are very detailed.[94] The Treaty founders intended them to be applied autonomously, with limited recourse to secondary legislation. In sensitive policy areas, this might be an advantage; once agreed upon, the Commission's action will not constantly be subject to political debate. Perhaps this robustness is also the reason why the safeguards provisions are vested with a special simplified treaty revision procedure.[95] Article 85 applies 'where new circumstances so require', and it provides that 'the procedures for applying the safeguards laid down in this Chapter may […] be adapted'. This adds some flexibility to the otherwise rigid treaty provisions. Interestingly, it is the Community institutions themselves that may modify the Treaty. There is no need for an intergovernmental conference, or for ratification by the Member States. The initiative may come from a Member State or from the

[92] See Schleicher, 'Nuclear Safeguards in the European Community', 50.
[93] See Grègoire Mallard, 'Can the Euratom Treaty Inspire the Middle East? The Political Promises of Regional Nuclear Communities' (2008) 15 *Nonproliferation Review*. Mallard discusses the possibility of using the Euratom Treaty, in particular the safeguards provisions, as a model for the Middle East.
[94] It should also be noted that some of the safeguards provisions are not applied, e.g., Article 80 Euratom, under which the Commission may require that 'excess special fissile materials recovered or obtained as by products and not actually being used or ready for use shall be deposited with the Agency or in other stores which are or can be supervised by the Commission'. This provision is linked to Chapter 8 on Property Ownership, in particular Article 86, which states that 'special fissile materials shall be the property of the Community'. The Ownership provisions are discussed in Chapter 4, 'Radiation Protection'.
[95] Cf., for example, Title II, Chapter 2 on Dissemination of Information, which is perhaps even more detailed, but it does not have such a procedure. Cf. the simplified procedure in Article 76 (Chapter 6 on Supplies) and Article 90 (Chapter 8 on Ownership).

Commission. The Council acts unanimously, on a proposal from the Commission and after consulting the European Parliament. As should be pointed out, this procedure has never been applied. But it is definitely more far-reaching than the simplified treaty revision procedures introduced by the Lisbon Treaty (Article 48.6–48.7 TFEU).[96]

6.3 Export controls

This section discusses the evolution of the EU export control regime. It is based on Council Regulation (EC) No 428/2009, of 5 May 2009, setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.[97] The Regulation stipulates that dual-use items shall be subject to effective control when they are exported from the Community.[98] It includes a list with items that may not leave the EU without an export authorisation.[99] The list implements the NSG lists and also other international export control lists. In addition, it includes a 'Catch-all Clause', which, under certain circumstances, allows export controls also for non-listed items.[100] The national authorities have the responsibility for export authorisations.

The purpose of this section is to explore why the Export Control Regulation takes the EC Treaty – and not the Euratom Treaty – as its legal basis. In order to answer this question, we shall examine the drafting history of the export regime. As will be shown, the choice between the two Treaties was not an obvious one.

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[96] That simplified treaty revision procedure does not apply to the Euratom Treaty, because there is no reference in Article 106a Euratom to the provisions in the TFEU.

[97] Council Regulation (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items, OJ 2009 No. L134, 29 May 2009, p. 1. This has been amended. See Regulation (EU) No 388/2012 of the European Parliament and of the Council of 19 April 2012 amending Council Regulation (EC) No 428/2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items, OJ 2012 No. L129, 16 May 2012, p. 12. See also the Commission Communication, 'The Review of Export Control Policy: Ensuring Security and Competitiveness in a Changing World', COM(2014) 244 final.

[98] For a description of the dual-use regulation, see Anna Wetter, *Enforcing European Union Law on Exports of Dual-Use Goods* (Oxford: Oxford University Press, 2009).

[99] The Regulation (EU) No 388/2012 defines dual-use items as 'items, including software and technology, which can be used for both civil and military purposes, and shall include all goods which can be used for both non-explosive uses and assisting in any way in the manufacture of nuclear weapons or other nuclear explosive devices'.

[100] Ibid., Article 4.1. The clause applies if the supplier has reason to believe that exported items are destined for a nuclear weapon programme.

6.3.1 The Dublin Declaration

In 1984 the Member States adopted 'the Dublin Declaration',[101] which concerns the implementation by the Community Member States of the first set of NSG Guidelines on nuclear transfers from 1978. The Dublin Declaration states that the principles contained in the NSG Guidelines constitute 'a common, fundamental set of rules for all the Member States in relation to their *nuclear exports*'.[102] The Declaration was adopted within the framework of the European Political Co-operation, because the NSG Guidelines were regarded to be a 'strategic issue'. But the possible use of the Euratom Treaty had been present in the discussions: the Declaration stated that the Member States recalled 'the rights and obligations deriving from their membership of the European Atomic Energy Community'.

In addition to committing to the Guidelines, the Dublin Declaration confirmed the existence of the Euratom Nuclear Common Market: 'transfers of nuclear material, equipment and technology may be made without restriction between the Member States'. There was one exception. The Declaration recognised the need for intra-Community controls on transfers of *particularly sensitive goods*. These were defined as 'plutonium and […] uranium enriched to more than 20%, as well as installations and technology relating to reprocessing, to enrichment, and to the production of heavy water'. These types of goods are regarded as 'sensitive' because they can be used to produce nuclear weapons (in addition to the production of civil nuclear energy). Such 'sensitive' goods are included in the Euratom Treaty's Annex IV, which defines the scope of the Nuclear Common Market. The Dublin Declaration therefore restricts the Nuclear Common Market; it sets up conditions on intra-Community trade for certain sensitive nuclear items listed in the Euratom Treaty's Annex IV.

On the face of it, it could be argued that the Dublin Declaration constitutes a deviation from the procedure in Article 92 Euratom on how to amend Annex

[101] Declaration of Common Policy adopted by the ministers for foreign affairs of the ten members of the Community on 20 November 1984, Communication Received from the Resident Representative of Italy on Behalf of the European Community, INFCIRC/322.
[102] Emphasis added.

IV[103]; the Member States change primary law through the European Political Co-operation. However, the Declaration only requires that certain products have to be controlled, and through a procedure that is formed by the Member States. In all other respects, free movement is still the rule – even for sensitive items.

In 1985, immediately after the adoption of Dublin Declaration, the Commission submitted two proposals for a Community export regime: one 'Proposal for a Council Regulation on conditions relating to transfers of nuclear materials between Member States and to imports from outside the Community'[104]; and one 'Proposal for a Council Regulation adopting criteria for the granting of Commission authorisation for exports of nuclear materials outside the Community'.[105] Both proposals took the Euratom Treaty as their legal bases.[106] The Council never took a decision on them. A few years later, the export control regime would be set up on the basis of the EC Treaty instead.

6.3.2 The Dual-Use Regulation

In 1994, the EU Export Control regime for dual-use items was set up. This can be linked to two events. In 1992, the NSG adopted the second set of Guidelines on 'dual-use items' (i.e., nuclear-related materials, equipment and technology that can be used for both civil and military activities).[107] The Commission submitted two proposals for a Community export control regime, just months after the adoption of these new Guidelines. In addition to the adoption of international instruments, there was the establishment of the internal market. With the new NSG Guidelines, common standards for control were to be set up for trade between the EU and third States. The EU Member States would also have to

[103] Article 92 Euratom provides that the Council, acting on a proposal from the Commission, may amend the lists.
[104] Proposal for a Council Regulation adopting conditions relating to transfers of nuclear materials between Member States and to imports from outside the Community, COM(1984) 686 final, OJ 1985 No. C29, 31 January 1985, p. 5.
[105] Proposal for a Council Regulation adopting criteria for the granting of Commission authorization for exports of nuclear materials outside the Community, COM(1984) 686 final, OJ 1985 No. C29, 31 January 1985, p. 10.
[106] One proposal was based on Articles 53(2) and 76 Euratom. The other one was based on 57(1) and 76 Euratom.
[107] Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Materials, Software and Related Technology, (INFCIRC/254, Part 2). As mentioned, the NSG Guidelines are not legally binding and do not give raise to obligations in the strict sense.

impose restrictions on trade between themselves. It was therefore necessary to adopt EU legislation on the elimination of controls between the Member States to ensure the free movement of goods and to 'improve the international competitiveness of European industry'.[108]

The EU export control regime was to be composed of two different instruments: an EC Regulation, adopted on the basis of ex Article 113 EC [commercial policy],[109] and a CFSP Joint Action, adopted under Article J.3 EU.[110] The EC Regulation provided the procedure for export licences. The CFSP Joint Action contained a list of 'dual-use items' requiring an export authorisation; a list with destination countries that were covered by a general authorisation; and guidelines that the Member States had to apply when deciding whether to grant export authorisation. The two instruments constituted 'an integrated system'.[111] A CFSP measure had to be adopted because decisions on the content of the 'common lists of dual-use goods, destinations and guidelines' were considered as being of 'strategic nature' and within the competence of the Member States. The use of the CFSP was in line with the Dublin Declaration, which had been adopted within the framework of the European Political Co-Operation.

But why was the Euratom Treaty not chosen as the legal basis for this export control regime? We saw earlier how the Commission (in 1985) had submitted proposals based on the Euratom Treaty. The simple explanation is that the Euratom Treaty does not cover 'dual-use goods', as defined by the NSG's *second*

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[108] The Regulation setting up the Community regime states: 'in establishing the internal market, the free movement of goods, including dual-use goods, must be ensured in accordance with the relevant provisions of the Treaty; whereas intra-Community trade in certain dual-use goods is currently subject to controls by the Member States; whereas a condition for the elimination of such controls on intra-Community trade is the application by the Member States of the most effective controls possible, based on common standards, on the export of the aforesaid goods in the framework of a Community regime of exports controls for dual-use goods; whereas the elimination of such controls will improve the international competitiveness of European industry.' Cf. the Commission proposal: 'whereas in the course of preparations for the completion of the internal market, in accordance with Article 8a of the Treaty, it has become clear that there is a need for common rules governing the export to third countries of certain dual-use goods and technologies and of certain nuclear products and technologies'.

[109] Council Regulation (EC) No 3381/94 of 19 December 1994 setting up a Community regime for the control of exports of dual-use goods, OJ 1994 No. L367, 31 December 1994, p. 1.

[110] Council Decision 94/942/CFSP of 19 December 1994 on the joint action adopted by the Council of the basis of Article J.3 of the Treaty on European Union concerning the control of exports of dual-use goods, OJ 1994 No. L367, 31 December 1994, p. 8.

[111] This is stated in the preambles of the two instruments.

set of guidelines, i.e., '*nuclear-related* materials, equipment and technology that can be used for both civil and military activities'. The Euratom Treaty only covers nuclear items (as defined in Annex IV, List A1 and A2). Had the Community export regime concerned nuclear items only, the Euratom Treaty might have been the proper legal basis. But as the EU Export Control Regime implements both sets of NSG Guidelines ('nuclear transfers' *and* 'dual-use items'), the EC Treaty had to be chosen instead; the Euratom Treaty does not cover dual-use goods.

In this context, we shall add that the Euratom Treaty in fact lists some 'dual-use items' (in List B, Annex IV): items that can be used for both 'nuclear and non-nuclear' purposes.[112] But these items are 'dual-use' in a different sense than the 'dual-use items' on the NSG list: the NSG Guidelines define 'dual-use' as nuclear-related items that can be used for both 'military and civil' purposes. The EU export control regime also defines dual-use goods as items that can be used for both 'military and civil' activities, but unlike the NSG definition, they do not have to be 'nuclear-related'. The EU Export Control regime goes beyond what the NSG wants to control. It is not only based on the two sets of NSG Guidelines, but also on lists adopted by other international export control regimes that are controlling items that could be used for other kinds of WMD than nuclear weapons, e.g., the Australia Group (chemical or biological weapons), the Wassenaar Arrangement (conventional weapons), and the Missile Technology Control Regime.

When setting up the EU Export Control regime, there was some discussion on the relationship between the Euratom Treaty and the EC Treaty. A detailed reading of the Commission proposal submitted in 1992[113] and the Regulation adopted in 1994 exposes some important differences. The title of the Commission proposal as well as Article 1 of the proposal, which states the purpose, referred not only to the control of 'dual-use goods', but also to the control of 'certain nuclear

[112] This was also the previous heading of this list (the heading is now deleted).
[113] Proposal for a Council Regulation (EEC) on the control of exports of certain dual-use goods and technologies and of certain nuclear products and technologies, COM(1992) 317, OJ 1992 No. C253, p. 13.

products and technologies'.[114] The proposal also provided a definition of 'dual-use goods', which also covered 'certain nuclear products and technologies'.[115] By 'certain nuclear products and technologies' what was (most likely) meant was the 'particularly sensitive goods' referred to in the Dublin Declaration.[116] No other nuclear products would be covered by the Regulation, because it was the Euratom Treaty – and not the EC Treaty – that governed external trade in nuclear products. The proposal recognised that the Euratom Treaty 'contains provisions concerning the control of exports of nuclear materials by the Community from its territory' and that 'this Regulation is not applicable to them'. It further recognised that the Regulation does not affect the application of the Euratom Treaty 'to exports of nuclear materials from the territory of the Community'.[117]

When the Council later adopted the export control regime in 1994,[118] most of the references to the Euratom were gone. The title no longer referred to 'certain nuclear products and technologies'. The Regulation still stated that it shall not affect the application of the Euratom Treaty,[119] but it no longer specified that it did not affect the Treaty for the 'exports of nuclear materials from the territory of the Community'. The EU export regime now covered *all* nuclear products, not only '*certain* nuclear products and technologies' i.e., 'particularly sensitive material' as defined by the Dublin Declaration.[120] The Regulation defines the term 'dual-use-items' as 'goods which can be used for both civil and military

[114] The proposal further states that the purpose is to 'ensure that Member States apply the necessary control measures […] to the exportation and re-exportation from the Community of certain dual-use goods and technologies and of certain nuclear products and technologies'. Ibid., Article 1.
[115] The proposal defines 'dual-use goods' as 'any of the goods, related technologies […], as well as certain nuclear products and technologies, which can be used for both civil and military purposes and which appear on a list to be enacted in a complementary regulation to this Regulation'. Ibid.
[116] As the Commission's proposal did not include the lists of products and destination countries, we do not know what was intended by 'certain nuclear products'. The lists were instead to be published 'in a complementary regulation to be adopted by the Council'. Ibid.
[117] Ibid., Article 21.
[118] Council Regulation (EC) No 3381/94 of 19 December 1994 setting up a Community regime for the control of exports of dual-use goods, OJ 1994 No. L367, 31 December 1994, p. 1.
[119] See Article 22 of Council Regulation (EC) No 3381/94. See also Article 26 of Council Regulation (EC) No 428/2009.
[120] See Annex I, in particular 'Category 0', of the Council Decision 94/942/CFSP of 19 December 1994 on the joint action adopted by the Council of the basis of Article J.3 of the Treaty on European Union concerning the control of exports of dual-use goods, OJ 1994 No. L367, 31 December 1994, p. 8.

purposes'. Nuclear goods were now covered by that definition. So, how did this happen? Why were the references to the Euratom provisions removed? And what happened between the 1992 proposal and the adoption of the Council Regulation in December 1994?

In November 1994, the Court adopted the WTO Opinion.[121] It held that since the Euratom Treaty 'contains no provisions relating to external trade', agreements concluded pursuant to Article 113 EC could be extended to trade in Euratom products.[122] This provides an explanation as to why the Regulation was based on the EC Treaty and not the Euratom Treaty and why not a joint legal basis was applied: as the Euratom Treaty lacked provisions on external trade, it could not be used as a legal basis for the export control regime. However, as explained in Chapter 2, 'Nuclear Industrial Development', the Court's finding in the *WTO Opinion* is problematic for several reasons. At the time of the Court's Opinion, the Euratom Treaty in fact contained some provisions relating to external trade (on the establishment of a joint external tariff). The Treaty also contains provisions on the conclusion of international agreements and on cooperation with the WTO. In addition, the Euratom was – and still is – exercising external powers in trade; it has concluded several bilateral agreements for the peaceful use of nuclear energy, which include provisions on trade in nuclear goods.[123]

But the story on the export control regime does not end here. The Court considered the EC Export Control Regime in two cases from 1995. We shall briefly examine these cases, because, as Dashwood argues, they made the EU institutions reform the export control regime,[124] and that reform also had implications for the Euratom.

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[121] Opinion 1/94, WTO [1994] ECR I-5267.
[122] Ibid., para 24.
[123] Other Euratom provisions could also have been applied. As mentioned, when the Commission submitted its first proposals, in 1985, it suggested Articles 57.1 and 76 Euratom as the legal bases for the Council Regulation on exports of nuclear materials, and Articles 53(2) and 76 for the Regulation on transfers of nuclear materials between Member States and to imports from outside the Community.
[124] Alan Dashwood, 'Dual-use goods (Mis)Understanding Werner and Leifer', in Anthony Arnull, Piet Eeckhout, and Takis Tridimas (eds.), *Continuity and Change in EU law – Essays in Honour of Sir Francis Jacobs* (Oxford: Oxford University Press, 2008), pp. 358–9. On the reform, see Panos Koutrakos, 'The Reform of Common Rules on Exports of Dual-Use Goods under the Law of the European Union' (2000) 2 *European Journal of Law Reform* 167–89; and Koutrakos, *Trade,*

6.3.3 The Werner and Leifer Case

Both cases concerned the German system of export control for dual-use goods and its compatibility with EC law. The question was whether some national measures were compatible with Article 113 EC. Under the German system, an export license was required for the export of dual-use goods. A license could be denied on the grounds of guaranteeing the security of Germany, to prevent disturbance to the peaceful coexistence of nations, and to prevent national external relations from being seriously disrupted.

In the *Werner* case,[125] the German authorities had denied Werner an export license to supply a vacuum-induction oven to Libya, an item that could be used for military purposes. Werner was denied the license on the ground that the export could seriously jeopardise the interests to be protected under the German rules. Werner brought an action before a German Court, which referred a question to the ECJ. The German Court asked whether Article 113 EC precluded national provisions on foreign trade requiring a licence for the export of an item to protect the public security of the Member State. In the *Leifer* case,[126] criminal proceedings had been brought against three individuals in connection with the unauthorised exportation of certain products to Iraq. Also in this case, the German court asked the ECJ for a preliminary ruling on the Member States' competence to maintain national export controls. Could the Member States impose national restrictions unilaterally, or was this is an exclusive EC competence?

The Court held that the implementation of the common commercial policy requires a non-restrictive interpretation, 'so as to avoid disturbances in intra-Community trade by reason of the disparities which would then exist in certain sectors of economic relations with non-member countries'.[127] The Court stated that a national measure 'whose effect is to prevent or restrict the export of certain products, cannot be treated as falling outside the scope of the common

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Foreign Policy and Defence in EU Constitutional Law: The Legal Regulation of Sanctions, Exports of Dual-Use Goods and Armaments (Oxford: Hart, 2001).

[125] Case C-70/94, *Fritz Werner Industrie-Ausrüstungen GmbH* v. *Federal Republic of Germany* ('Werner') [1995] ECR I-3189.

[126] Case C-83/94, [1995] ECR I-3231.

[127] *Werner*, para 9.

commercial policy on the ground that it has foreign policy and security objectives'.[128] The Court then pointed out that Article 113 EC transferred full responsibility for commercial policy to the Community, and that national measures were only permissible if the Community specifically authorises them.[129]

The Court noted that Council Regulation (EEC) No 2603/69 of 20 December 1969 establishes common rules for the export of goods from the Community to third countries.[130] That Regulation prohibits quantitative restrictions, with the exception that Member States may restrict exports on the ground of public security. That exception corresponded largely to Article 36 EC [now Article 36 TFEU]. The Court also referred to the *Richardt* Case,[131] where the Court had held that the concept of 'public security' within the meaning of Article 36 EC covers both a Member State's internal and external security.[132] The Court pointed out that the security of a state is linked to the security of the international community, and that it is no longer possible to look at a state's security in isolation.[133] It concluded that the exportation of goods capable of being used for military purposes to a country at war with another country might affect the public security of a Member State, and that the EC rules on common commercial policy do not preclude such national provisions applicable to trade as those in the German legislation on dual-use goods.[134]

As Dashwood points out, the judgments made the EU institutions reform the export control regime in the year 2000.[135] In Dashwood's view, the reform was

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[128] Ibid., para 10.
[129] Ibid., para 12. The Court also referred to the Judgments in Case 41/76, *Donckerwolke Procureur de la République* [1976] ECR 1921, para 32; and Case 174/84, *Bulk Oil* v. *Sun International* [1986] ECR 559, para 31.
[130] Regulation (EEC) No 2603/69 of the Council of 20 December 1969 establishing common rules for exports, OJ 1969 No. L324, 27 December 1969, p. 25, English Special Edition 1969 (II), p. 590.
[131] See *Werner*, para 25, and Case C-367/89, *Richardt and 'Les Accessoires Scientifiques'* [1991] ECR 1-4621, para 22.
[132] The Court had also held that interpreting the concept more restrictively when used in the Council Regulation (EEC) No 2603/69 'would be tantamount to authorizing the Member States to restrict the movement of goods within the internal market more than movement between themselves and non-member countries'. *Werner*, para 25.
[133] Ibid., para 26.
[134] Ibid., para 29.
[135] Dashwood also referred to C-124/95, *The Queen, ex parte Centro-Com* v. *HM Treasury and Bank of England* [1997] ECR I-81.

based on a misreading of the judgements.[136] He argues that the cases are not about the scope of the EC's commercial policy competence, but about the interplay between the competence and the continuing right of the Member States, 'to adopt measures of foreign and security policy in their exercise of their national competence'.[137]

6.3.4 The Single Regulation Approach

In the year 2000, the export control regime was reformed. The EC adopted a combined system with one single instrument: a Regulation based on Article 133 EC (now Article 207 TFEU).[138] This replaced the 'two-pillar-solution': the CFSP Joint Action and the EC Regulation.[139] The new Regulation includes the list of items subject to authorisation and the list of destinations subject to the general export authorisation, which was previously included in the CFSP Joint Action.

Four Annexes are attached to the Regulation. Annex I sets out the lists of controlled dual-use items. They are ordered in ten different categories. 'Nuclear materials, facilities and equipment' form 'Category 0'. Annex IV sets out a list with items that require prior authorisation not only for external trade, but also for intra-EU trade. 'Category 0' was included in that list. Thus, prior authorisation for 'Category 0' was required for both external trade and intra-Community trade. In 2001, the Commission submitted a proposal for an

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[136] Dashwood explains: 'The mistaken reading of the three cases, which led the institutions to restructure the Union's dual-use regime, was due to a failure to recognize the distinction between competence, in the sense of legal authorization for the Community to do things and the scope of application of the EC Treaty. The significance of the distinction lies in the fact that the obligations Member States have accepted under the Treaty may impose serious constraints on their powers, even in areas where the Community's competence is limited or non-existent, such as those of foreign and security policy […] Just because a Member State requires Community authorization to implement a national regime for the control of exports of dual-use goods, it by no means follows that the Community is fully (and exclusively) competent to establish such a regime itself'. Dashwood, 'Dual-use goods (Mis)Understanding Werner and Leifer', pp. 358–9.

[137] Ibid., citing *Centro-Com*: C-124/95, *The Queen, ex parte Centro-Com* v. *HM Treasury and Bank of England* [1997] ECR I-81, para 27.

[138] Council Regulation (EC) No 1334/2000 of 22 June 2000 setting up a Community regime for the control of exports of dual-use items and technology, OJ 2000 No. L159, 30 June 2000, p. 1.

[139] In restructuring the system, the Council adopted a decision that repealed the 1994 Joint Action. The decision refers to the three cases. See Council Decision of 22 June 2000 repealing Decision 94/942/CFSP on the joint action concerning the control of exports of dual-use goods, OJ 2000 No. L159, 30 June 2000, p. 218.

amended Regulation.[140] The licensing procedure was now seen as incompatible with the principle of free movement of nuclear materials under the Euratom Treaty. What explains this change? The Commission explained that the reason for the inclusion of 'Category 0' in Annex IV had been 'to enable the Member States and the EU to comply with their international commitments, particularly within the NSG'. It then held that '[i]t has since become apparent that intra-Community controls on non-sensitive nuclear materials […] are hampering trade without improving the level of protection already conferred by the Euratom Treaty'.[141]

When the Council subsequently amended the Export Control Regulation, it abolished the licensing procedure for intra-Community nuclear trade.[142] Thus, the nuclear common market was no longer to be restricted by the means of an EC (and EU) instrument. We should point out that the change did not cover 'particularly sensitive nuclear items'; intra-EU trade in such products still requires a licence. The Regulation refers to the Dublin Declaration and notes that the Member States had 'acknowledged the need for intra-Community controls on transfers of goods regarded as particularly sensitive in the context of weapons non-proliferation'. So, while the EU Export Control Regime governs external trade in nuclear material, internal trade is subject to the Euratom free movement rules (except 'particularly sensitive nuclear items', which continue to be an exception from Euratom's free movement of nuclear goods, and regulated by an EC instrument).

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[140] Proposal for a Council Regulation amending Regulation (EC) No 1334/2000 with regard to intra-Community transfers and exports of dual-use items and technology, COM(2000) 766 final, OJ 2001 No. C96E, 27 March 2001, p. 242.

[141] The Commission also explained that the licensing procedure for intra-Community trade with nuclear material was redundant because of the Additional Protocol the Euratom and the Member States had signed with the IAEA (1998). The Additional Protocol obliges parties to notify transfers of specified equipment and non-nuclear material to the IAEA. Under the Additional Protocol, it is the Euratom (the Commission), which shall notify the IAEA of such transfers (Annex III of the Additional Protocol). See COM(2000) 766 final.

[142] Council Regulation (EC) No 2889/2000 of 22 December 2000 amending Regulation (EC) No 1334/2000 with regard to intra-Community transfers and exports of dual-use items and technology, OJ 2000 No. L336, 30 December 2000, p. 14. However, unlike the Commission's proposal, the Amending Regulation does not refer to the incompatibility with the principle of free movement of nuclear materials under the Euratom Treaty. It only explains that the intra-Community controls on nuclear materials are hampering trade 'without improving the level of protection already conferred by the Euratom Treaty'.

6.4 Nuclear Security

This section considers yet another important facet of non-proliferation: nuclear security. As indicated at the beginning of this chapter, nuclear non-proliferation and nuclear security are traditionally conceived as separate 'disciplines'. While 'non-proliferation' focuses on states, 'nuclear security' focuses on individuals and theft. With the emergence of international terrorist organisations, these two 'disciplines' have become increasingly intertwined. One indication of this development is that the EU 2003 Non-Proliferation Strategy addresses two aspects of the threat of proliferation of WMD: state proliferation and proliferation by non-state actors. The strategy addresses non-proliferation not only in its traditional sense, but also 'nuclear terrorism'.[143]

As explained, an important instrument to counter this new threat is the Convention on Physical Protection of Nuclear Material. We shall now discuss the Euratom's accession to this Convention.[144] We shall start with some aspects of the drafting history and we shall then examine Ruling 1/78, where the ECJ decided that the Convention is compatible with the Euratom. We shall then say a few words on the implications of the Euratom's accession to the Convention: the possibility to use criminal penalties. Finally, a few words shall be said about how the EU is becoming the 'external face' of nuclear security, perhaps at the expense of the Euratom.

6.4.1 The Accession to the Convention on Physical Protection

In 1977, the IAEA organised a meeting in Vienna to discuss a draft of the Convention on Physical Protection of Nuclear Material. The IAEA invited the European Commission to participate as an observer, representing the Euratom. This invitation should be seen in the light of the cooperation agreement with the

[143] This reflects the fact that the strategy was adopted in the wake of 9/11.
[144] 1979 Vienna Convention on the Physical Protection of Nuclear Materials, Vienna, 26 October 1979, in force 8 February 1987, 1456 UNTS 246/18 ILM 1419 (1980)/[1987] ATS 16, INFCIRC/274/Rev.1 May 1980.

IAEA that had been concluded a few years earlier.[145]

In a Communication to the Council, the Commission emphasised that certain clauses in the draft Convention related to fields in which the Euratom had direct responsibilities.[146] The draft Convention stipulated that State Parties had to undertake not to permit imports or exports of nuclear material unless such material was subject to certain specified physical protection measures during transport.[147] The Commission pointed out that if only some Member States were to adhere to the Convention, there was a possibility that those Member States would find themselves under an obligation to refuse authorisation to carry out certain transfers within the Community. This would constitute a threat to the unity of the common market and the supply system. It was therefore necessary that all Member States adhered to the Convention. But the Member States could not enter into an undertaking to agree to transfer nuclear materials between Member States without impeding the application of the Treaty, in particular the basic principles relating to free movement and the Supply System, which ensures equal access to sources. This could hinder the activities of the Supply Agency, as the Member States would be committing themselves to impose restrictions when importing nuclear materials into the Community. The Commission then laid the ground for what the Court would later establish as the duty of cooperation:

> The evolution of international discussions in the nuclear field influences more and more the shaping of internal policies of the Community [...] It is therefore necessary that when these discussions take place, a co-ordinated and consistent line be taken by the Community and its Member States.

The Commission concluded that it was necessary that both the Community and all Member States participated in the Convention. The Commission invited the Member States to declare that they could not fulfil their commitments under the Convention unless it would include a clause allowing the accession of the

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[145] See Article II(2) of the co-operation agreement concluded on 1 December 1975 between the European Atomic Energy Community and the International Atomic Energy Agency, OJ 1975, No. L329, p. 28.
[146] Commission Communication, Convention on Physical Protection of Nuclear Material, COM(1977) 520 final (Brussels, 20 October 1977).
[147] Article 4 of the Convention on Physical Protection of Nuclear Material.

Euratom. However, both France and the UK claimed their rights to set their own standards for the protection of nuclear materials.[148] This is why Belgium requested the ECJ to decide on a series of questions relating to the division of powers between the Euratom and the Member States with regard to the conclusion of the Convention. Belgium's application was made pursuant Article 103 Euratom, which reads as follows:

> Member States shall communicate to the Commission draft agreements or contracts with a third State, an international organisation or a national of a third State to the extent that such agreements or contracts concern matters within the purview of this Treaty.

According to the same Article, Member States have to wait to conclude a proposed agreement until they have received comments from the Commission. If the Commission has objections, the Member States shall not conclude the agreement until they have satisfied these objections or complied with a Ruling from the Court. The Court shall adjudicate upon an application from Member States on 'the compatibility of the proposed clauses' with the provisions of the Euratom Treaty.

6.4.2 Ruling 1/78

In *Ruling* 1/78,[149] the Court reviewed the question of whether the participation of one or more Member States in the Convention was compatible with the provisions of the Euratom Treaty relating to the division of powers between the Community and the Member States if the Euratom would not be a party to the Convention.[150] For EU law scholars, *Ruling* 1/78 is perhaps best known for being the foundation of the principle of close cooperation. However, we are principally interested in the Court's widening of the scope of some of the central chapters of the Euratom Treaty.

After having noted that the Belgian Government had submitted to the IAEA a

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[148] See Olivier Pirotte, Pascal Girerd, Pierre Marsal, and Sylviane Morson (eds.), *Trente ans d'expérience Euratom: la naissance d'une Europe nucléaire* (Bruxelles: Bruylant, 1988), pp. 77–9.
[149] Ruling 1/78, Ruling delivered pursuant to the third paragraph of Article 103 of the EAEC Treaty - Draft Convention of the International Atomic Energy Agency on the Physical Protection of Nuclear Materials, Facilities and Transports [1978] ECR-2151.
[150] For an analysis of this case, see Pirotte, Girerd, Marsal, and Morson (eds.), *Trente ans d'expérience Euratom*, pp. 77–87. See also the references in ibid. at 77, note 83.

draft amendment to make participation of international organisations possible, the Court then examined whether the Euratom had the necessary powers to ensure the implementation of the Convention. It held that '[i]t is undeniable that the draft convention "concerns" in various ways matters within the purview of the EAEC Treaty according to the expression used in the first paragraph of Article 103'. Four Euratom Treaty chapters were concerned: Chapter 6 on 'Supplies'; Chapter 7 on 'Safeguards'; Chapter 8 on 'Property Ownership'; and Chapter 9 on the 'Nuclear Common Market'.

The ECJ first examined the Treaty chapters on 'Supplies' and 'Nuclear Common Market'.[151] The Court pointed out that the supply provisions 'show the care taken in the Treaty to define in a precise and binding manner the exclusive right exercised by the Community in the field of nuclear supply in both internal and external relations'.[152] It then held that the provisions on the Nuclear Common Market 'appear to be nothing other than the application in a highly specialized field, of the legal conceptions which form the basis of the structure of the general common market'. The Court stated that the Community has exclusive jurisdiction with regard to nuclear supplies and a general responsibility for the functioning of the nuclear common market. It would not be possible to 'define a supply policy' and 'to manage the nuclear common market properly' if the Community could not enter as a party of the Convention. Further, if the Member States were to enter into obligations such as those provided in the Treaty, they would interfere with the scope of the jurisdiction of the Community and impede the application of the Euratom Treaty (Article 103 Euratom).

The Court then examined the Treaty chapter on 'safeguards.[153] It pointed out that there is an 'undeniable lack of certainty as to the scope' of the provisions.[154] If they were interpreted restrictively, they would be 'nothing more than a check on "conformity" or "destination" that is to say a check with a view to ensuring that the nuclear materials are not diverted, by the person in possession of them,

[151] *Ruling* 1/78, paras 13–18.
[152] Ibid., para 14.
[153] Ibid., paras 19–23.
[154] Ibid., para 19.

to a purpose other than that which he himself declared'.[155] The Court emphasised that such an interpretation 'would bear no relation to the measures of physical security envisaged in the draft convention inasmuch as the latter serves to avoid external action, in other words, the intervention of unauthorised third parties'.[156] The Court then examined if this interpretation took 'full account of the wording and the aims of the Treaty':

> From a historical point of view it must be admitted that the dangers which the draft convention seeks to counter were without a doubt less real to the negotiators and the general public at the time when the [Euratom] Treaty was drawn up and implemented; it is also true that the arrangements for supervision made by the Community under the rules of the treaty relating to safeguards are not capable of coping fully with the new responsibilities defined by the convention.[157]

The Court held that these considerations 'do not justify the very restrictive interpretation of safeguards'. It pointed out that the Euratom Treaty does not make a distinction with regard to the nature of diversions and the circumstances in which they might take place.[158] The Court explained:

> [T]he very expression 'safeguards' which the Treaty uses to characterize the provisions of Chapter VII has a wider scope than the mere substitution of a different destination for the one declared by a user of nuclear materials. The Treaty here envisages all diversions of nuclear materials entailing a security risk that is to say the danger of interference with the vital interests of the public and the States.[159]

The Court held that there could be no doubt that 'the concept of "safeguards" within the meaning of the Treaty is *sufficiently comprehensive* to include also measures of physical protection'.[160] It also pointed out that the Community must be able to exercise 'central supervision of the use to which nuclear materials for which it is responsible are put'.[161] The Court concluded this part by holding that

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[155] Ibid.
[156] Ibid.
[157] Ibid., para 20.
[158] Ibid. The Court referred to Article 2, which states the it is the task of the Euratom to make certain, by appropriate supervision, that nuclear materials 'are not diverted to purposes other than those for which they are intended'.
[159] Ibid., para 21.
[160] Ibid. Emphasis added.
[161] The Court referred to rules that the Community had determined (in particular Commission Regulation (Euratom) No 3227/76 of 19 October 1976 concerning the application of the provisions on Euratom Safeguards). The Court also referred to Article 77(b) Euratom, which

'the exclusion of the Community from the draft convention would have the effect not only of hindering, in certain respects, the functioning of the safeguards as laid down by Chapter VII […] but it would also compromise the *subsequent development* of that system to its full scope implied by the very concept of "safeguards"'.[162] The Court here seems to say that the Euratom might in the future adopt its own measures on nuclear protection, but that a restrictive interpretation would defeat such a development.

The Court then examined the Treaty chapter on 'Property Ownership'.[163] It explained that the system of ownership means that 'whatever the use to which nuclear materials are put, the Community remains the exclusive holder of the rights'.[164] The Court established that there is a close relationship between these provisions and the supply provisions. It found that the ownership is the basis of the supply arrangements. It is the role of the Euratom, as the owner of nuclear materials, to ensure that the general needs of the public are fulfilled: 'Consequently in so far as the draft Convention is intended to meet new risks, the Community is concerned as the owner of the materials which are to be protected'.[165] The Court then held that 'the Treaty sought to place the Community in a strong position to enable it to accomplish fully its task of general interest' and that 'the supply arrangements and the system of security must be regarded in close connexion with the system of property ownership'. It concluded that 'the Community has a well-founded title to participate in a Convention whose object is to reinforce the physical protection of materials of

states that the Community 'must be in a position to give to third parties all the guarantees resulting from the obligations which it has assumed in agreements concluded with other States or international organizations'. Ibid., para 22.

[162] Ibid., para 23. Emphasis added.

[163] Ibid., paras 24–30. See also Articles 86–91 Euratom. This chapter was 'directly relevant to the problems raised'. The Court pointed out that 'the ideas contained in [Chapter 8, 'Property Ownership] were one of the major issues in the negotiations which led to the creation of the [Euratom]. Para 25. Article 86 Euratom states that special fissile materials shall be the property of the Community, and Article 87 guarantees to the Member States and to other persons or undertakings 'the right of use and consumption'.

[164] Ibid., para 27.

[165] Ibid., paras 27–8.

which it is the owner in the sense described above'.[166]

The Court finally concluded that the Convention concerns in part the jurisdiction of the Member States and in part that of the Community.[167] The system set up by the Convention 'could only function in an effective manner, within the ambit of Community law, on condition that the Community itself is obliged to comply with it in its activities'.[168] Further:

> To the extent to which jurisdiction and powers have been conferred on the Community under the [Euratom] Treaty, the Member States, whether acting individually or collectively, are no longer able to impose on the Community obligations which impose conditions on the exercise of prerogatives which thenceforth belong to the Community and which therefore no longer fall within the field of national sovereignty.[169]

If the Member States concluded the Convention alone, this would 'detrimentally affect the powers conferred upon it by the Treaty' and it would also 'call in question its capacity for independent action'.[170]

The *Ruling* not only widened the Euratom Treaty's competence to cover nuclear protection, but also clarified and broadened the scope of some of the Euratom's central chapters.[171] Some commentators criticise the Court's reading for being detached from the letter of the Treaty and for only taking an integration perspective.[172] Indeed, consider the Court's reasoning in the part of the *Ruling*

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[166] Ibid., para 29. For a critique of this part of the Ruling, see Pirotte, Girerd, Marsal, and Morson (eds.), *Trente ans d'expérience Euratom*, p. 86. As Pirotte et al. argues, the ownership provisions only concern 'special fissile materials' as defined in Article 197 Euratom, whereas the scope of the supply provisions is much broader. This means that the ownership provisions cannot be the basis for the supply arrangements.
[167] *Ruling* 1/78, para 31–6.
[168] Ibid., para 32.
[169] Ibid.
[170] Ibid., para 33. The Court also held: '[I]t is also the Community which must be able to participate, as such, through its own institutions, in the drawing up and implementation of the measures provided in the draft convention in so far as it is to affect the aforesaid systems. The Member States are not to intervene in the exercise of those prerogatives; in accordance with the division of powers set out in Article 101 of the Treaty that right is conferred upon the common institutions alone'. Ibid.
[171] The Euratom did not accede until 1991, after all Member States had ratified it.
[172] Pirotte et al. criticises this part of the Court's reasoning: 'L'interprétation que donne la Cour du chapitre VII parait abusivement extensive. Se détachant de la lettre du Traite, elle s'est livrée a un raisonnement fonde avant tout sur une perspective d'intégration'. See Pirotte, Girerd, Marsal, and Morson (eds.), *Trente ans d'expérience Euratom*, pp. 84–85

that concerns the safeguards provisions. There is a slight disparity between the different language versions, which might have contributed to the Court's conclusion. The French language version refers to the Safeguards Provisions as 'Le contrôle de sécurité', which seems to include competence also in the field of nuclear protection (i.e., 'security control'). Perhaps in order to signal its broad reading, the Court refers to 'the implementation of the *security provisions*',[173] in that part of the Ruling.

6.4.3 Criminal Penalties

In this context, let me say a few words about how the EU institutions have widened the Euratom's competence to prescribe criminal penalties. This issue is somewhat off the main track of this chapter, however, it needs to be addressed, and it clearly shows how the 'competence creep' in the context of the EC (TFEU) Treaty also affects the Euratom.

In 1980, when the Euratom signed the Convention on Physical Protection,[174] it attached a Declaration of Competence which stated that Articles 7 to 13 of the Convention, which relate to criminal prosecution and extradition, were not applicable to the Community.[175] The reason was that the Euratom Treaty does not provide any powers on criminal policy. But this general understanding would change, just as it did when it comes to the EC Treaty. In 2007, the Council adopted a decision approving the Euratom's accession to an amended Convention,[176] and later that year, the Commission concluded it.[177] To its decision, the Commission attached a Declaration of Competences, which

[173] Emphasis added.
[174] Council Decision of 9 June 1980 approving the conclusion by the Commission of the International Convention on the physical protection of nuclear material, OJ 1980 No. L149, 17 June 1980, p. 41. The Euratom acceded to the Convention in 1991, after all Member States had ratified it.
[175] Indeed, in *Ruling* 1/78, the Court pointed out: 'it is quite clear that the articles in question relate to matters falling within the jurisdiction of the States' (para 31).
[176] Council Decision 2007/513/Euratom of 10 July 2007 approving the accession of the European Atomic Energy Community to the Convention on the Physical Protection of Nuclear Material and Nuclear Facilities, OJ 2007 No. L190, 21 July 2007, p. 12. The Commission signed the amendment in 2005 on behalf of the Euratom (on the 8th of July 2005).
[177] Commission Decision 2008/99/EC, Euratom of 19 December 2007 concerning the accession of the European Atomic Energy Community to the Convention on the Physical Protection of Nuclear Material and Nuclear Facilities, OJ 2008 No. L34, 8 February 2008, p. 3.

enumerates the same Convention articles as the Declaration from 1980. But there is one difference[178]: Article 7 does not appear. This Convention article establishes a list of offences, in respect of which the parties are required to prescribe appropriate penalties. Why does this provision appear in the Declaration from 1980, but not in the Declaration from 2007? To clarify, the fact that it does not appear means that it applies to the Euratom. The amended Convention adds some offences to the list in Article 7, but, otherwise, it is largely unchanged. So how can this be explained?

As pointed out, the Euratom Treaty itself does not contain any provisions on criminal law. In an explanatory memorandum accompanying the proposal for a Council Decision to accede to the amended Convention, the Commission explains:

> Having in mind the modernising approach as the overall objective of the amendment of the CPPNM to better respond to new threats and to achieve greater nuclear security by combating, preventing, and ultimately punishing those who would engage in nuclear theft, sabotage or even terrorism, the conclusions of the Court [in Ruling 1/78] has to be interpreted in a new light, which implies that also the scope of application of the Convention to Euratom will have to be adapted accordingly.[179]

Thus, it is the 'modernising approach' of the amended Convention that makes it necessary to interpret *Ruling 1/78* 'in a new light'. The scope of application of the Convention to the Euratom had to be adapted. The Commission then explains the basis for this reinterpretation: 'In an analogy to the recent judgement of the Court related to the protection of the environment, the requirement to establish sanctions by the Member States cannot *per se* be excluded from Euratom competence'. The Commission here refers to the well-known *Environmental Penalties Case* from 2005,[180] which concerns the relationship between the first and the third pillar in the pre-Lisbon Treaty architecture.

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[178] The Declaration also listed Article 14(2) and (3) of the Convention on Physical Protection of Nuclear Material.
[179] Proposal for a Council Decision approving the accession of the European Atomic Energy Community to the Convention on the Physical Protection of Nuclear Material and Nuclear Facilities, COM(2006) 518 final.
[180] Case C-176/03, *Commission* v. *Council* ('Environmental Penalties') [2005] ECR I-7879. See in particular, paras 47 and 48.

In *Environmental Penalties*, the Council had adopted a Framework Decision on the protection of the environment through criminal law,[181] based on Title VI of the EU Treaty (the third pillar). The Framework Decision established a list of a number of environmental offences, in respect of which the Member States were required to prescribe criminal sanctions. This entailed harmonisation of the Member States' criminal laws. The Commission, which had instead proposed the adoption of a Community instrument, based on Article 175 EC (the first pillar), asked the Court to annul the Framework Decision. The Court found that '[a]s a general rule, neither criminal law nor the rules of criminal procedure fall within the Community's competence'.[182] The Court then held:

> [This] finding does not prevent the Community legislature, when the application of effective, proportionate and dissuasive criminal penalties by the competent national authorities is an essential measure for combating serious environmental offences, from taking measures which relate to the criminal law of the Member States which it considers necessary in order to ensure that the rules which it lays down on environmental protection are fully effective.[183]

The Court then held that the contested provisions, on account of the aim and the content, have as their main purpose the protection of the environment, which is one of the essential objectives of the Community.[184] These provisions could have been properly adopted on the basis of Article 175 EC. The Court decided that the framework decision was indivisible and that it 'infringes Article 47 EU as it encroaches on the powers which Article 175 EC confers on the Community'.[185] It concluded that the Framework Decision must be annulled.

In its proposal to accede to the amended Convention, the Commission refers to the *Environmental Penalties case* by 'analogy'.[186] What are the implications of applying the Court's reasoning to the Euratom Treaty? The *Environmental Penalties* case concerned the EC's competence to lay down criminal penalties in a

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[181] Council Framework Decision 2003/80/JHA of 27 January 2003 on the protection of the environment through criminal law, OJ 2003 No. L29, 5 February 2003, p. 55.
[182] Case C-176/03, para 47.
[183] Ibid., para 48.
[184] Ibid., para 51.
[185] Ibid., para 53.
[186] This is in line with the Commission's Communication on the implications of this case, where it stated that 'the Court's reasoning can be applied to all Community policies and freedoms which involve binding legislation with which criminal penalties should be associated in order to ensure their effectiveness'. Commission communication to the European Parliament and the Council on the implications of the Court's judgment of 13 September 2005, COM(2005) 583 final.

Community measure. This seems different from a situation where the Euratom adopts a Declaration on competences attached to a decision to conclude an international instrument. While the *Environmental Penalties* case is about internal competence, the Declaration is about external competence. The purpose of the Declaration is to clarify the Community's competence to third parties.[187]

Note also that the Commission had previously explained that in applying the Court's reasoning from *Environmental Penalties*, it was to carry out a 'test of necessity'.[188] This test was to be determined on a 'case by case basis'. In other words, the Commission would decide in each concrete case whether it was necessary to include in the legal act provisions on criminal penalties. However, when the Commission adopted the Declaration concerned, this necessity test seems to have been applied *in abstracto*.[189] Further, one might wonder how to apply a 'necessity test' in light of how the Court sees the function of the penalties. In *Ruling* 1/78, the Court held that 'the penalties do not in themselves constitute a *necessary* element in the system of physical protection although they serve to reinforce it'.[190] So, if the penalties are not a 'necessary element' of the Convention, what does this mean for the 'necessity test' to be applied when adopting implementing legislation? It should be pointed out that the Commission seems to take a rather cautious approach in terms of adopting Community measures in the field: 'the intentional commission of different acts, threats and attempts "shall be made a punishable offence by each State Party under its national law", are not *per se* excluded to apply also to Euratom'.[191]

The Court's reading of ex Article 47 EU was central in the *Environmental Penalties* case. But as the pillar structure and the former Article 47 EU have been

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[187] On such Declarations more generally, see Delgado Casteleiro, Andres, 'EU Declarations of Competence to Multilateral Agreements: A Useful Reference Base?' (2012) 17 *European Foreign Affairs Review* 491–509.
[188] COM(2005) 583 final.
[189] Conversely, a necessity test would be applied every time the Euratom is adopting implementing legislation. This could involve some uncertainty for third parties; the Declaration does not explain that the Euratom's competence might be limited in this way.
[190] *Ruling* 1/78, para 31. Emphasis added. The Court continued: 'In other words, the centre of gravity of the draft convention lies in the preventive measures and in the organization of effective physical protection'. Ibid.
[191] Proposal for a Council Decision approving the accession of the European Atomic Energy Community to the Convention on the Physical Protection of Nuclear Material and Nuclear Facilities, COM(2006) 518 final.

repealed, how can the Euratom's competence to adopt measures on criminal penalties now be understood? As pointed out in Chapter 2, 'The Structural Relationship between the Euratom and EU', it is only Article 106a Euratom that now governs the relationship between the Euratom Treaty and the EU Treaties.[192] Could a 'necessity test' be derived from Article 106a Euratom? Or does the necessity test from the *Environmental Penalties* case apply despite the fact that Article 47 EU has been repealed?[193] At some point, the Court will have to take a decision on these questions.

6.4.4 A Change in External Representation?

As explained, the Euratom has acceded to both the Convention on the Physical Protection and to the Amended Convention. However, it now seems that the EU, perhaps at the expense of the Euratom, is increasingly becoming the 'external face' in the field of nuclear protection. For example, the President of the European Council represents the *EU* (and not the Euratom) at the international nuclear summits.[194] Another indication is that the Council has adopted CFSP measures on support for IAEA activities on nuclear security 'in the framework of the implementation of the EU Strategy against Proliferation of Weapons of Mass Destruction'.[195] Furthermore, it is the EU, and not the Euratom, that is formally

[192] While ex Article 47 EU stated the EU Treaty 'shall not affect' the Community Treaties, Article 106a Euratom states that the EU Treaties 'shall not derogate' from the Euratom Treaty.
[193] In 2008, the EC adopted a Directive on the protection of the environment through criminal law. This Directive includes discharges of nuclear material in the environment. See Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law, OJ 2008 No. L328, 6 December 2008, p. 28.
[194] The 2012 Nuclear Security Summit in Seoul and at the 2010 Summit in Washington. European Council, Statement by President Herman Van Rompuy, on behalf of the European Union at the Nuclear Security Summit in Washington, PCE 68/10 (Washington, 2010).
[195] Council Decision 2010/585/CFSP of 27 September 2010 on support for IAEA activities in the areas of nuclear security and verification and in the framework of the implementation of the EU Strategy against Proliferation of Weapons of Mass Destruction, OJ 2010 No. L259, 1 October 2010, p. 10; Communication received from the Delegation of the European Union to the International Organizations in Vienna on the European Union's Support for IAEA Activities in the Areas of Nuclear Security and Verification, 28 October 2010, INFCIRC/811; Council Joint Action 2008/314/CFSP of 14 April 2008 on support for IAEA activities in the areas of nuclear security and verification and in the framework of the implementation of the EU Strategy against Proliferation of Weapons of Mass Destruction, OJ 2008 No. L107, 17 April 2008, p. 62; Council Joint Action 2006/418/CFSP of 12 June 2006 on support for IAEA activities in the areas of nuclear security and verification and in the framework of the implementation of the EU Strategy against the Proliferation of Weapons of Mass Destruction, OJ 2006 No. L165, 17 June 2006, p. 20; Council Joint Action 2005/574/CFSP of 18 July 2005 on support for IAEA activities in the areas of

the donor to the IAEA Nuclear Security Fund. Previously, the Euratom was the external face – even when it was an issue of a more 'strategic' nature. One example is the Euratom's objection to Pakistan's reservation to the Convention on Physical Protection.[196] The Euratom stated that the reservation calls into question Pakistan's commitment to the object and purpose of the Convention. Of course, no 'actor' other than the Euratom could have raised this objection; the Euratom was the party to the Convention and not the EU. In any case, whether it is the EU or the Euratom that is the 'external face' seems to be a distinction without a difference, at least in legal terms. However, as the area of nuclear protection has become a part of the wider concept of non-proliferation, one might argue that the EU action is 'de-Communitizing', i.e., it is becoming intergovernmental. The more 'intergovernmental' aspects of nuclear non-proliferation shall be dealt with in the next section.

6.5 External Actions under the CFSP

In the opening section of this chapter, we briefly examined the many different types of international non-proliferation instruments. We then examined the Euratom safeguards system, the development of the EU export control regime, and the Euratom's accession to the Convention on Physical Protection of Nuclear Material. We shall now briefly examine some instruments that have been adopted on the basis of the CFSP. The purpose is to show how these measures

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nuclear security and verification and in the framework of the implementation of the EU Strategy against Proliferation of Weapons of Mass Destruction, OJ 2005 No. L193, 23 July 2005, p. 44; and Council Joint Action 2004/495/CFSP of 17 May 2004 on support for IAEA activities under its Nuclear Security Programme and in the framework of the implementation of the EU Strategy against Proliferation of Weapons of Mass Destruction, OJ 2004 No. L182, 19 May 2004, p. 46.

[196] See Objection to the Declaration of Pakistan – received on 19 October 2001: 'The European Atomic Energy Community has carefully examined the declaration made by the Islamic Republic of Pakistan at the time of its accession to the Convention on the Physical Protection of Nuclear Material, with regard to article 2, paragraph 2. The European Atomic Energy Community objects to the aforesaid reservation by the Government of the Islamic Republic of Pakistan to the Convention on the Physical Protection of Nuclear Material, which puts in question Pakistan's commitment to the object and purpose of the Convention. This objection does not preclude the entry into force of the Convention between the European Atomic Energy Community and the Islamic Republic of Pakistan'. Finland and Greece had made this objection already in 1989. See also Proposal for a Council Decision on objection to be made on behalf of the European Atomic Energy Community to a reservation formulated by the Islamic Republic of Pakistan at the time of its accession to the Convention on the Physical Protection of Nuclear Material, COM(2001) 583 final (proposal for a decision sui generis).

are linked to the Euratom measures.

The origins of the EU's non-proliferation policy can be traced back to 1981, when a working group was set up within the EPC.[197] It was within this framework the Member States adopted the already discussed 'Dublin Declaration'. In the initial years, it was difficult for the Member States to formulate a credible non-proliferation policy, as France was not a party to the NPT. France's accession to the NPT in 1992 opened up for a more active policy.[198] This coincided with the adoption of the Maastricht Treaty, which provided for the institutional setting for the CFSP. Already from the start, non-proliferation was recognised as a significant policy area.[199]

The EU's non-proliferation policy did not take off until 2003, in the wake of 9/11. The European Council adopted a 'Non-Proliferation Strategy'[200] in parallel to the European Security Strategy.[201] Just like the European Security Strategy, it stresses the importance of 'effective multilateralism'.[202] It emphasises three important factors: (1) the support of multilateral institutions; (2) the need to promote a stable regional and international environment; (3) and the need for close cooperation with key partners. The Strategy refers to international treaties

[197] See Kamil Zwolski, 'The External Dimension of the EU's Non-proliferation Policy: Overcoming Inter-institutional Competition' (2011) 16 *European foreign affairs review* 325–40; and Clara Portela, 'The Role of the EU in the Non-Proliferation of Nuclear Weapons: The Way to Thessaloniki and Beyond', PRIF Reports No. 65, 12–20.
[198] In 1995, the first important step was taken in forming the EU's non-proliferation policy. The EU adopted a Joint Action to help build consensus on the indefinite extension of the NPT. See Decision 94/509/CFSP concerning the Joint Action regarding preparation for the 1995 Conference of the States Parties to the Treaty on the Non-proliferation of Nuclear Weapons, OJ 1994 No. L205, 8 August 1994, p. 1.
[199] European Council, Lisbon, Presidency Conclusions, 26–27 June 1992, Annex I, Report to the European Council in Lisbon on the likely development of the Common Foreign and Security Policy (CFSP) with a view to identifying areas open to joint action vis-à-vis particular countries or groups of countries, Doc. SN 3321/2/92, § 35.
[200] 'The EU Strategy against Proliferation of Weapons of Mass Destruction', Council of the European Union, Brussels, 10 December 2003, 15708/03.
[201] 'A Secure Europe in a Better World: European Security Strategy', Brussels, 12 December 2003. The European Security Strategy identifies more threats, defines the EU's strategic objectives, and sets out the political implications. The strategy identifies three main threats: terrorism, failed states and organised crime, and the proliferation of WMD.
[202] Cf. 'effective multilateralism' in the European Security Strategy (ibid). For an analysis of how the doctrine of effective multilateralism relates to the regulation of the international use of force in the UN Charter, see Per Cramér, 'Reflections on European Effective Multilateralism and the Use of Force', in Malcolm Evans and Panos Koutrakos, *Beyond the Established Legal Orders: Policy Interconnections between the EU and the Rest of the World* (Oxford: Hart, 2011), pp. 225–48.

such as the NPT and the safeguards agreements with the IAEA.[203] It also states that non-proliferation must be a central element in the EU's external actions and that '[t]he EU must act with resolve, using all instruments and policies at its disposal'.[204]

In 2009, the Commission clarified that those 'instruments and policies' include some Euratom measures[205]: safeguards activities; the use of the Euratom Supply Agency; and safeguards research. The Commission also explained how the instruments can be used to develop stronger international guarantees: by strengthening the support for the NPT and nuclear safeguards; extending cooperation with key nuclear countries through bilateral Euratom agreements; and contributing to the development of an international system of guaranteed supply of nuclear fuel for countries willing to develop nuclear energy without having their own nuclear fuel cycle facilities.[206]

Also in 2003, the Council adopted a set of basic principles and an Action Plan. One concrete step was the 'Council Common Position on the universalisation and reinforcement of multilateral agreements in the field of non-proliferation'.[207] The aim was to promote the universal adoption and implementation of some key multilateral agreements, including the NPT, Safeguards Agreements, and the

[203] The strategy also refers to the International Code of Conduct against Ballistic Missile Proliferation; the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization; the Chemical Weapons Convention (CWS); and the Biological and the Toxin Weapons Convention (TWC).
[204] In 2008, the Council endorsed a document on 'New lines for action' where it held that proliferation of WMD posed a greater threat since the Non-Proliferation Strategy was set up. It called for the raising of the profile of non-proliferation measures and for improving and intensifying cooperation in measures to obstruct illegal transfers. See Council Conclusions as endorsed by the Council (GAERC) on 8–9 December 2008, 'The New Lines for Action in combating the proliferation of weapons of mass destruction', Brussels, 17 December, doc. 17172/08.
[205] Communication from the Commission to the Council and the European Parliament, Communication on nuclear non-proliferation, COM(2009) 143 final.
[206] One specific measure is that the Council decided to support the IAEA nuclear fuel bank and pledged support of 25 million euros. See Council Conclusions as endorsed by the Council on 8–9 December 2008, 'EU Contribution for the establishment of an IAEA Nuclear Fuel Bank', Brussels, 17 December 2008, 17187/08.
[207] Council Common Position on the universalisation and reinforcement of multilateral agreements in the field of non-proliferation of weapons of mass destruction and means of delivery, Brussels, 11 November 2003, 14310/03.

IAEA Additional Protocols.[208] The aim was also 'to reinforce their provisions, including by ensuring compliance'. It should be noted here that it is the Euratom – and not the EU – that has concluded the safeguards agreements with the IAEA. It is also the Euratom that has concluded the IAEA Additional Protocols. Nevertheless, this Common Position is adopted on the basis of the CFSP. The Euratom is not mentioned. More generally, it is the Euratom – and not the EU – that is the party of the Euratom-IAEA co-operation agreement.[209] The Commission represents the Euratom 'at appropriate meetings convened under their respective auspices'.[210]

We should also mention that in 2003, the Council agreed on the language for a 'non-proliferation clause',[211] to be included in future or revised agreements with third countries. The clause obliges parties to comply and implement obligations under existing non-proliferation treaties. This part of the clause constitutes 'an essential element' of the agreements. The clause also contains a second part, which commits parties to 'sign, ratify, or accede to, as appropriate, and fully implement all other international instruments'.[212] This second part is not 'an essential element' by default, but can be considered as such 'on a case by case basis'. When it comes to existing agreements, the insertion of the non-proliferation clause is merely an aim, 'on any occasion of renewal or revision of

[208] The other instruments are: Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, Geneva, 3 September 1992, in force 29 April 1997, 1974 UNTS 45: V.2.; 1972 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, London, Moscow and Washington, 10 April 1972, in force 26 March 1975, 1015 UNTS 163 / [1977] ATS 23 / 11 ILM 309 (1972); and The Hague Code of Conduct against Ballistic Missile Proliferation, the Hague, 25–26 November 2002. The aim is also 'to promote the early entry into force of the Comprehensive Nuclear Test-Ban Treaty'.
[209] Co-operation agreement between the European Atomic Energy Community and the International Atomic Energy Agency, OJ 1975 No. L329, p. 28.
[210] See Article II.2 of the Co-operation agreement between the Euratom and the IAEA. We can also note that the Commission represents the Euratom in the NSG and the Zangger Committee. These two regimes are informal. The Commission only has observer status. However, as mentioned, the Zangger Committee's 'trigger list' is now included in the IAEA Additional Protocol, which the Euratom has acceded to.
[211] The EU policy as regards the non-proliferation element in the EU's relationships with third countries, adopted by the Council at its 17 November 2003 Session, Brussels, 19 November 2003, 14997/03.
[212] The clause also obliges parties to cooperate and contribute to 'the establishment of an effective system of national export controls, controlling the export as well as transit of WMD related goods, including a WMD end-use control on dual-use technologies and containing effective sanctions for breaches of export controls'.

such agreements'. In case of a failure to reach an agreement on an amendment, 'the EC and its Member States should examine the opportunity of appropriate measures, which could include denunciation of the agreement'. The clause is only inserted in mixed agreements where the EU is a party alongside the Member States.[213] But the relationship between the use of the clause and Euratom agreements is not very clear. As mentioned, the Euratom has concluded some bilateral agreements on peaceful cooperation on nuclear energy. These agreements set up conditions on safeguards, including adoption and adherence to the Additional Protocol.[214] Where such a Euratom agreement exists, the use of the non-proliferation clause seems superfluous. We can also note that it is not clear whether the Euratom can also include such clauses in its agreements; the Euratom is not mentioned in the documents on the non-proliferation clause.

We can finally note that in 2006, the EU established a WMD Monitoring Centre to ensure consistent implementation of the non-proliferation strategy,[215] but no efforts seem to have been made to streamline the Euratom activities and the EU activities.

[213] Prior to the Lisbon Treaty, the Community-only agreements (i.e., former EC agreements) could not include a non-proliferation clause, because the EC's competence was limited in the field. The EU therefore concluded parallel instruments which established links with the EC agreements. However, part of the clause did not fall outside EC competence: the clause mentions the control of dual-use goods, which was clearly an EC competence, at least since the adoption in the year 2000 of the Regulation setting up an export control regime of dual-use items. Cremona points out that, in practice, this had been done by Joint Declarations and not by binding agreements, and that expressed links with the EC agreement were often missing. Marise Cremona, 'Values in EU Foreign Policy', in Malcolm Evans and Panos Koutrakos (eds.), *Beyond the Established Orders: Policy Interconnections between the EU and the Rest of the World* (Oxford: Hart Publishing, 2011), pp. 275–316 at 306. See e.g., Joint Declaration of the People's Republic of China and the European Union on Non-proliferation and Arms Control, signed 8 December 2004, doc. 15854/04. See also EU-US Declaration on enhancing cooperation in the field of non-proliferation and the fight against terrorism, Washington, 20 June 2005, doc. 10306/05.

[214] The Euratom agreements also set up conditions to adhere to international conventions on nuclear safety, waste management, and physical protection.

[215] See e.g., the establishment of the WMD Monitoring Centre in 2006: 'EU Strategy against the Proliferation of WMD: monitoring and enhancing consistent implementation', endorsed by the General Affairs and External Relations Council, Brussels, 12 December 2006, doc. 16694/06.

6.6 Conclusions

The purpose of this chapter was to explore the functional division between the Euratom and the EU in the field of nuclear non-proliferation. Obviously, this is a very broad field and various instruments are applied. The instruments take either the Euratom or the EU Treaties (either CFSP provisions and non-CFSP provisions) as their legal basis. When it comes to export controls, the Euratom is not applied. There is also a range of measures adopted on the basis of the CFSP rather than the Euratom. But the Euratom is clearly needed in this field. The Euratom's safeguards provisions offer an added value in the sense that they cannot be substituted; there are no powers under the EU Treaties that could be used instead (cf. Euratom's 'Health and Safety' provisions).

One consequence of this division is that it results in institutional division. For the European Parliament, the choice between using the Euratom and the CFSP does not matter much – the European Parliament plays only a minimal role under both the Euratom and the CFSP. The choice between the Euratom and non-CFSP is of more significance in this respect. Moreover, non-proliferation policy has been scattered within the Commission: at least three different DG's hold responsibilities in this field.[216] This 'institutional fragmentation' might create some tensions, which could lead to incoherent choices.[217] However, at least in theory, some of these tensions should have been remedied by the Lisbon Treaty's strengthened role of the High Representative and the introduction of the European External Action Service.[218]

We cannot observe any obvious legal difficulties arising from the fact that nuclear non-proliferation is dealt with under separate treaties. Although the choice between the treaties appears inconsistent at times, the division of functions is rather straightforward. However, third parties might perceive the

[216] A division under DG Energy governs Euratom Safeguards: Directorate E 'Nuclear Safeguards' and also Directorate D3 (under Nuclear Safety and Fuel Cycle) 'Nuclear accountancy, Methods and Evaluation' (previously named the Euratom Safeguards Office). DG Relex governs the CFSP measures and DG Trade the trade issues. A similar 'fragmentation' is discernable within the Council. There are two Council committees: the Committee on Non-Proliferation (CONOP) and the Committee on Nuclear Affairs (CONUC).
[217] Zwolski, 'The external dimension of the EU's non-proliferation policy'.
[218] Note that Article 106a Euratom refers to Article 18 TEU on the High Representative, but not to Article 27 TEU on the External Action Service.

Euratom and the EU as separate actors, and it would probably strengthen the perception of the EU as a unified actor, and one that also cares about the 'internal' aspects of nuclear non-proliferation (i.e., the application of Euratom safeguard in the Member States), if non-proliferation had only 'one home'.

Conclusions

This dissertation set out to consider some fundamental issues in EU law. The particular focus was on exploring the legal implications of the continued separate existence of the Euratom within the EU. The aim was to show that either the Euratom ought to be kept separate from the Union or brought into the EU framework. I shall first summarise some of the main findings in the different chapters and then provide some reflections on what I see as the implications of these findings. I shall conclude by pointing to areas of further research.

Summary and Main Findings of the Chapters

Part I provided the background and discussed structural issues. We first briefly explored the historical background (Chapter 1). The purpose was to gain a better understanding of the Euratom-EU relationship today and to set the stage for the chapters that followed. The motivation for the Euratom Treaty was to engender economic prosperity and to make Europe energy-independent. Some commentators also believed that the Euratom would be an important instrument for integration. However, when economic and political realities changed, the Euratom's very rationale disappeared.

We then explored structural issues in the relationship between the Euratom and the EU (Chapter 2). We tried to conceptualise the EU and the Euratom as legal regimes. The question was whether they belong to the same legal regime or whether they are better conceptualised as separate legal regimes. This question is important for the choice of legal basis and for the transposition of legal principles from one treaty to another. It was assumed that the Euratom and the EU belong to the same legal regime in the sense that they share institutions and in that they both have supranational characteristics. However, the Euratom Treaty is *not* just another policy area; it is a separate treaty with separate objectives. In addition, the Euratom has a distinct 'ethos', which should also be taken into account.

Part II of the dissertation mapped out three broad policy areas: (i) nuclear industrial development; (ii) nuclear safety and radiation protection; and (iii)

non-proliferation. The purpose was to explore and illustrate the relationship between the Euratom and the EU. Gaps and overlaps were identified and the Euratom's added value was discussed.

Chapter 3 focused on the Euratom's main task: nuclear industrial development. This chapter first examined the provisions that could be regarded as 'dirigiste' and then some 'market-oriented' aspects. The chapter showed that most areas could be regarded as 'dirigiste', but that they are not applied in the way they were originally intended. The Euratom has evolved considerably since the 1950s. Today, many of the provisions on nuclear industrial development are of only minor significance. The Euratom does not offer any added value as a separate Treaty. The Euratom is merely supplemental to the EU.

Chapter 4 discussed different aspects of 'radiation protection'. The focus was on 'overlaps' between the Treaties. It demonstrated that many activities dealt with by the Euratom in the area of 'radiation protection' could also be dealt with under competence of the EU Treaties, in particular the competence on environment, public health, and safety for workers. These are policy areas where the original EEC Treaty did not have competence. But with each Treaty revision, the EU's legislative competence has expanded. This expansion makes the Euratom Treaty increasingly redundant.

Chapter 5 dealt with nuclear safety. It was argued that the Euratom Treaty has found a new *raison d'être* – although no changes have been made to the text of the Treaty. This evolution started, somewhat paradoxically, with the Chernobyl accident in 1986. Following the accident, several instruments were adopted which take the Euratom Treaty as a legal basis. The collapse of the Soviet Union and the 2004 Eastern enlargement of the EU were other important junctures. But it was eventually the ECJ that opened up for legislation on nuclear safety. Prior to the *Nuclear Safety* Case,[1] it was generally believed that no legal basis existed. The Euratom has now gained new momentum, as nuclear safety became one of the Euratom's most important activity areas. Today, the bulk of the Euratom's activities are in this field.

[1] Case C-29/99, *Commission* v. *Council* [2002] ECR I-11221.

Chapter 6, which is the last chapter of Part II, dealt with 'nuclear non-proliferation'. The chapter showed that the different activities are dealt with under either the Euratom Treaty or the EU Treaties (and either under CFSP provisions or non-CFSP provisions). The Euratom Safeguards is one of the few areas where we cannot find corresponding provisions under the EU Treaties. The safeguards provisions are 'alive' in the sense that they are applied, although they might be less relevant than at the time of the adoption of the Treaty. But if the Euratom were abolished, an alternative would have to be found. In light of the Commission's far-reaching powers under these provisions, it is easy to imagine that the negotiations would be difficult. If the IAEA were to have sole responsibility for inspection of Member States' facilities, this would represent a decisive step back from supranationalism.

The Treaty Relationship in Case Law

One important objective of Chapters 3 to 6 was to illustrate and examine how the EU legislator and the Court make the choice between the Euratom and EU. The 'shall not derogate' clause in Article 106a Euratom (ex Article 305 EC) is central in this respect. We examined the clause in Chapter 2 ('Structural Relationship') and two possible interpretations were identified. According to a strict interpretation, there is a 'fixed boundary' between the treaties. The Euratom Treaty is *lex specialis* as a whole and *in abstracto*. If the Euratom Treaty is silent, then the EU Treaties may *not* apply as *lex generalis*. The competence remains with the Member States. According to a more flexible interpretation, there is no such boundary. Where the Euratom Treaty is silent, the EU Treaties (EC Treaty) may apply in the alternative. The examination of the substantive areas (Chapters 3 to 6) shows that the Court adheres to the latter interpretation.

However, there are actually very few cases where the ECJ even mentions the clause. In Joined Cases 188 to 190/80 (*Transparency Directive* Case),[2] the Court held that the submission could not be accepted because it had not been established that the provisions of the Directive derogated from the provisions of the Euratom Treaty. The Court was somewhat clearer in Opinion 1/94 ('WTO

[2] Joined Cases 188 to 190/80, *France, Italy and United Kingdom* v. *Commission* [1982] ECR 2545.

Opinion'),[3] in which it addressed the question of whether the EC had the competence to conclude alone also those parts of the WTO Agreement that concerned products and/or services falling exclusively within the scope of application of the Euratom Treaty and the ECSC Treaty. The Court pointed to the existence of the 'shall not derogate' clause, but simply stated that '[s]ince the Euratom Treaty contains no provisions relating to external trade, there is nothing to prevent agreements concluded pursuant to Article 113 of the EC Treaty from extending to international trade in Euratom products'. This case indicates that as long as the Euratom is silent, application of the EC Treaty is possible, and that there are no 'fixed boundaries' between Treaties. As Everling points out, '[t]his interpretation opened the door for interlinking the three Communities in practice'.[4] There is no reason to believe that the post-Lisbon reading of the 'shall not derogate' clause is any different (but note, as pointed out in Chapter 2, the Euratom Treaty is post-Lisbon to be seen as *lex specialis* in relation to the CFSP provisions).[5]

We can note that the 'shall not derogate' clause is no obstacle to applying general principles over the treaty boundaries. In Case C-115/08 ('the *Temelín* Case'),[6] the Court held that the principle of prohibition of discrimination on grounds of nationality, enshrined in Article 12 EC, also applies to the Euratom Treaty. The Court ruled that 'it would appear to be contrary to both the purpose and the consistency of the treaties to allow discrimination on grounds of nationality […] to be tolerated within the scope of application of the EAEC Treaty'. The CJEU stated that the 'shall not derogate' clause had to be taken into account,[7] but it did not explain how and if it was applied. It should be pointed out that it was non-discrimination as a *general principle*, and not Article 12 EC *per se* that was applied. This was not the first time the Court applied principles over the treaty boundaries. In the *ILO* Opinion 2/91, the Court stated that the 'principle of close

[3] Opinion 1/94, WTO ECR [1994] I-5267.
[4] Everling, 'From European Communities to European Union', p. 141.
[5] As explained, Article 47 EU was repealed and, for what regards the Euratom, Article 106a.3 Euratom replaced it. The Euratom-CFSP relationship is now governed by the wording 'shall not derogate' instead of the previous 'shall not affect'. It might also be the case that the CFSP is *lex specialis* with respect to other EU policies as a result of Article 40 TEU.
[6] Case C-115/08, *Land Oberösterreich* v. *ČEZ* ('*Temelín*') [2009] ECR I-10265. See Chapter 4, 'Radiation Protection'.
[7] See ibid., para 85.

cooperation', which was originally developed in a Euratom Treaty context, was also applicable to the EEC Treaty.[8] The Court stated that this principle must apply also in the context to the EEC 'since it results from the requirement of unity in the international representation of the Community'.

There are also cases which are significant for the treaty relationship, but in which the clause is not mentioned. In Case C-61/03 ('the *Jason* Case'),[9] the Court decided that the Euratom Treaty does not apply to nuclear energy for military purposes because the Treaty does not contain a derogation laying down detailed rules according to which the Member States would be authorised to rely on and protect their essential interests. The Court also held that measures may instead be adopted on the basis of the relevant provisions of the EC Treaty in so far as the Euratom Treaty does not provide the Community with a specific instruments 'to pursue the objective of protecting the health of the public and the environment against the dangers related to the use of nuclear energy, including for military purposes'. So, the Euratom objective of protecting the health of the public must be reached by using EC competence.[10] The Court did not mention the 'shall not derogate' clause.[11]

The examination of the substantive areas makes clear that the Court read the 'shall not derogate' clause quite differently from the 'shall not affect' clause in ex Article 47 EU.[12] As explained, the Court interpreted Article 47 EU as establishing hierarchy. But note that the mere difference in *wording* was of no significance ('shall not affect' and 'shall not derogate'): the Court's reading of the 'shall not derogate' clause is similar to the reading of the 'shall not affect' clause governing

[8] Opinion 2/91, *ILO* [1993] ECR I-1061, para 36. For a discussion on the constitutional foundation of the duty of cooperation, see Christophe Hillion, 'Mixity and coherence: The significance of the duty of cooperation', in Christophe Hillion and Panos Koutrakos (eds.), *Mixed Agreements Revisited: the EU and Its Member States in the World* (Oxford: Hart Publishing, 2010), pp. 87–115.
[9] Case C-61/03, *Commission* v. *United Kingdom* [2005] ECR I-2477, para 44.
[10] Cf. the Court's reasoning in the *Kadi* case, paras 197–204.
[11] See, however, Case C-61/03, *Commission* v. *United Kingdom* [2005] ECR I-2477, Opinion of AG Geelhoed, paras 104–6.
[12] The reason is the intergovernmental characteristics of what was previously the EU (now CFSP). As Dashwood points out, the EU Treaty also recognised in other ways that the EC Treaty enjoyed a certain priority over the EU Treaty. For example, Article 1(3) of the pre-Lisbon EU Treaty stated that the EU was founded on the Communities and *supplemented* by the policies and forms of cooperation under the EU Treaty. See Alan Dashwood, 'Article 47 TEU and the relationship between first and second pillar competences', 71–2.

the former EC-ECSC relationship.[13] Yet, it should be noted that the case law on 'shall not affect' in ex Article 47 EU and the cases on the 'shall not derogate' clause (as well as the cases on the ECSC Treaty) concerned two conceptually distinct issues. The case law on ex Article 47 EU concerned measures with 'potential' legal bases in the EC Treaty and the EU Treaty. We refer to this situation as an 'overlap'. The case law on ex Article 305 EC concerned situations where no legal bases were to be found in the Euratom Treaty (or in the ECSC Treaty), and the question was whether the EC Treaty could be used instead. In other words, it concerned the question of 'gaps'.

One implication of the Court's reading of the clause is the following: as the Euratom Treaty does not contain any provisions on competition and State aid, there is nothing to prevent the provisions in the TFEU from applying to the nuclear sector. But a more nuanced approach needs to be taken here. The general scheme and sprit of the Euratom Treaty must be taken into account – and, in practice, the Commission seems to be doing that. This follows not only from the 'shall not derogate' clause, but also from principles on interpretation in general public international law.

The case law does not answer the question of what to do with 'gaps' in the Euratom Treaty where the Euratom provisions do not 'pre-empt' an area. The most salient example is the provisions on the nuclear common market, which are not as 'exhaustive' as the corresponding provisions in the EU Treaties on the internal market. The suggested solution here is that the EU Treaties cannot apply to 'complement' the Euratom rules, because that would amount to a breach of the 'shall not derogate' clause. In other words, it is the very existence of Euratom provisions that create such a breach.

In case of 'overlaps' between the Treaties, the 'shall not derogate' clause generally hinders an application of the EU Treaties. For example, radiation protection legislation concerning the protection of workers is adopted on the basis of the Euratom Treaty and not on the TFEU (if we did not have the Euratom, the TFEU could possibly be used instead). But do we really need the 'shall not

[13] Thus, the Court read Article 305.1 and 305.2 EC in the same way.

derogate' clause to tell us this? If applying the *lex specialis* principle (as a general principle, and not embodied in the 'shall not derogate' clause), we would reach the same conclusion.

Consider also Case C-490/10, *Parliament* v. *Council*, where the Court states that when nuclear energy is 'only a component', there is no need to apply the Euratom Treaty. Surprisingly, the 'shall not derogate' clause is not even mentioned. The 'centre of gravity' approach developed by the ECJ under the EC Treaty shall also apply to the relationship between the Euratom and the EU. Under the EC, the Court has held that if more than one provision fits the content or aim, the provision in the 'centre of gravity' of the legal act shall prevail, i.e., the predominant or main component of the legal act. But this normally involves a choice between different policy areas, such as environment or trade. This choice is conceptually different from a choice that involves 'general' energy and 'special' energy (i.e., nuclear energy).

Consider also that the ECJ has held (in the context of the EC Treaty) that when it is not possible to identify a main component of a measure (because two or more components are 'indissociably linked'), it might be necessary to use a dual (or multiple) legal basis.[14] The chapters on the substantive areas illustrate that where there are 'overlaps' between the Treaties, a joint legal basis is possible and it is often used. A joint legal basis was not possible in the EC-EU relationship – a choice had to be made between the Treaties (the provision stipulating this was ex Article 47 EU). A joint legal basis is often applied even though the 'nuclear energy aspects' appear to be only a 'component'. After Case C-490/10, *Parliament* v. *Council* this practice might change.

As the Court has also held under the EC Treaty, a dual legal basis can only apply if the decision-making procedures are compatible. They are not regarded as compatible if one legal basis stipulates unanimity in the Council and the other one requires that the decision be taken by majority. If different legal bases are stipulating different roles for the European Parliament, the 'most democratic' legal basis shall be chosen. The position defended here is that when the Court is

[14] Opinion 2/2000 [2001] ECR I-9713, para 23.

to make such a choice between the Euratom Treaty and the TFEU, the Euratom Treaty should be chosen even though the TFEU gives the European Parliament a more prominent role in the decision-making procedure (and recall that the European Parliament generally has a more limited role under the Euratom Treaty than under the TFEU). The European Parliament's limited role is a choice made by the Treaty framers.[15] This is also where the 'shall not derogate' clause comes into play – it would otherwise be void of all meaning.

General Findings

The chapters on substantive issues also show that many of the Euratom Treaty provisions have not been applied at all. Yet, it would be wrong to describe the Euratom as a complete failure or dead letter. As the dissertation clarifies, there is a significant body of law adopted under the Euratom Treaty. I hope to have shown that the Treaty is still frequently applied. Some areas are certainly more successful than others. In that sense, the Euratom Treaty is no different from the EU Treaties.

What types of actions are adopted on the basis of the Euratom Treaty? By comparison to the EU Treaties, many of the Euratom Treaty provisions are very detailed.[16] In sensitive policy areas, such detailed provisions might facilitate the adoption of secondary legislation; there is less need to explain the existence of a legal basis and to justify why legislation is needed. Thus, detailed provisions can function as an 'imperative' to adopt legislation.[17] In this sense, the Euratom's provisions on radiation protection have an important function, because it is easier to use them than to apply the more 'general' environmental provisions.

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[15] This is also supported by Case C-130/10, *European Parliament* v. *Council* EU:C:2012:472, which concerns the choice between Article 75 TFEU and Article 215 TFEU. The Court held that 'it is not procedures that define the legal basis of a measure but the legal basis of a measure that determines the procedures to be followed in adopting that measure' (para 80). The Court admitted that the Parliament's participation in the legislative process 'is the reflection, at Union level, of the fundamental democratic principle that the people should participate in the exercise of power through the intermediary of a representative assembly' (para 81), but that the difference between Article 75 TFEU and Article 215 TFEU, is the result of the choice of the Treaty framers 'conferring a more limited role on the Parliament with regard to the Union's action under the CFSP' (para 82).

[16] See, for example, Title II, Chapter 2 on 'Dissemination of Information', Chapter 6 on 'Supplies', and Chapter 7 on 'Safeguards'.

[17] Cf. more generally framed legal bases, for example, Article 192 TFEU on the environment.

However, if it was initially true that the Euratom Treaty was detailed while the EEC Treaty had more of a framework character,[18] this is no longer the case. With every treaty revision, the EU Treaties (here, the TFEU) have become increasingly more detailed, at least in the sense that more legal bases have been added. At the same time, the Euratom Treaty is also increasingly supplemented by secondary legislation. This is certainly true in the area of 'Health and Safety', where the interpretation of the Treaty provisions has been particularly broad. Thus, there is a tendency for convergence here; the Euratom and the EU are becoming more like each other.

Detailed primary law is more robust than secondary legislation, which can be more easily changed by the EU institutions. There is, however, always a need for some flexibility. This could explain the existence of the specific provisions for a simplified Treaty revision (in the Euratom Treaty). A simplified treaty revision procedure can also compensate the rather few possibilities to adopt secondary law under the Treaty. Despite the existence of these procedures, the Euratom Treaty has never been amended.

The Euratom Treaty is largely a document for technocrats. It employs highly technical language, which can be difficult even for legal experts to penetrate, and in order to understand fully the Treaty provisions one has to have some knowledge of the technical background. One might argue that the legislation adopted under the Euratom Treaty ought to have more political input. A comparison can be made with the Comitology procedure, where the criticism is that the Commission is hiding behind technical experts and in that way evades

[18] See J.H.H. Weiler, *The Constitution of Europe: Do the New Clothes Have an Emperor? and Other Essays on European Integration* (Cambridge: Cambridge University Press, 1999), p. 6. As Hencher points out: 'The EEC Treaty is a traité-cadre – or framework Treaty – whereas the other two are traits-lois. The EEC Treaty is an instrument of general economic integration; the ECSC and Euratom Treaties are instruments of sectoral integration. […] These differences become evident in the degree of specificity used to define the various instruments provided to achieve each Treaty's main goals and objectives. The EEC Treaty rules are for the most part expressed in terms of general principles which may be supplemented by secondary legislation. The other two Treaties provide for detailed rules governing such matters as research, investment, health and safety, and in the case of the ECSC Treaty, cartel and state aid regulation, which do not always require further implementing legislation'. Leigh Hancher, *EC Electricity Law* (London: Chancery Law Publishing, 1992), p. 22.

political assessment.[19] Moreover, it might be the case that the Euratom also ought to have more *legal* input – due to the highly technical issues involved, it is not uncommon that engineers, rather than legal experts, are involved in crafting legal documents. In this context, recall the discussion in Chapter 2 ('Structural Relationship') on whether the Euratom is also a 'constitutional charter'. If a general requirement for constitutions were that they should be easy to understand for the general public, the Euratom Treaty would certainly not fulfil it.[20]

Moreover, the Euratom does not seem to have a 'constitutional quality' that we can ascribe to so many other provisions of the EU Treaties; the Euratom provisions do not seem to be 'fundamental'. Of course, this argument would apply to any other policy area in the TFEU, if examined in isolation from other more 'constitutional provisions', i.e., the same objections could be raised if one would examine, e.g., agriculture, health, or environment. It would be equally inappropriate to depict these policy areas as being of a constitutional character. But if these provisions are to be regarded as forming part of the EU's constitutional framework, there seems to be little reason why the Euratom would not also form part of the constitutional framework.

We have seen that the nature of the Euratom's competence varies over different areas. The Euratom has exclusive powers in the areas of supply, ownership, dissemination of information, and safeguards. In the other areas, competence is shared with the Member States. In yet other areas, the Euratom is only to coordinate or supplement Member State action (e.g., the area of investment). It should be pointed out that the 'competence catalogue' in Articles 2 to 6 TFEU does not 'apply' to the Euratom; these treaty articles do not tell us anything about how the competences are distributed between the Euratom and the Member States. The nature of competence in the EU Treaties seems, however, to

[19] See, for example, Carl Fredrik Bergström, *Comitology: Delegation of Powers in the European Union and the Committee System* (Oxford: Oxford University Press, 2005); and Wouter Dammers, *Comitology in the Decision-Making Process of the European Union: Good Governance Guaranteed?* (Nijmegen: Wolf Legal Publishers, 2008).

[20] This is not to say that ease of comprehension is a pre-condition of constitutionality. However, generally, I believe easy comprehension is something that many drafters of constitutions are aiming for because it makes the system more transparent. 'Simplicity' was, for example, one of the objectives of the Laeken Declaration.

roughly correspond to the nature of competence under the Euratom Treaty; for example, research is a shared competence under both the Euratom Treaty and the EU Treaties.

What is the form of the measures adopted? The same types of instruments (regulations, directives, and decisions, etc.) are used as under the EU Treaties. Some of the measures are harmonising measures, e.g., the measures adopted under the Euratom's 'Health and Safety' provisions. There are also many measures with a more limited scope, where the Commission only has the power to issue recommendations or to coordinate. The Commission often has a supervisory, coordinating role under the Euratom Treaty. In order to perform its functions, it needs information from the Member States. The Treaty therefore provides a range of 'notification procedures'.[21] As we have seen, there are also some special rules and procedures that only apply within the Euratom.

From an institutional perspective, it matters which Treaty is being applied. It matters most for the European Parliament. Under the Euratom Treaty, the European Parliament has, at best, only a consultative role. The Parliament is very much an advisory body, like the European Economic and Social Committee (EESC) and the Scientific and Technical Committee. Thus, applying the EU Treaties instead of the Euratom Treaty means bringing the European Parliament into the legislative procedure.

We have seen that the European Parliament sometimes seeks to steer the choice of legal basis towards treaty articles where it has greater influence.[22] One recent example is Case C-48/14 (pending),[23] where the European Parliament has brought an action to annul Council Directive 2013/51/Euratom of 22 October 2013 laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption. The European Parliament claims that the choice of legal basis

[21] The Member States are obliged to communicate radioactivity levels (Article 36), plans for waste disposal (Article 37), investments projects (Article 41–4), research programmes (Article 5), draft contracts and agreements (Article 103).
[22] See, for example, Case C-70/88 *Parliament* v. *Council* [1990] ECR I-2041; and Case C-490/10, *European Parliament* v. *Council* EU:C:2012:525.
[23] Case C-48/14, *European Parliament* v. *Council*, Action brought on 30 January 2014.

should be Article 192 TFEU (environmental protection) and not Articles 31 and 32 Euratom (radiation protection). Under Article 192 TFEU, the ordinary legislative procedure applies; the Parliament is co-legislator. Under Article 31 and 32 Euratom, the Parliament has only a consultative role. In a few cases, the Parliament has succeeded in its endeavour to steer the choice of legal basis. Although formally excluded, in practice, the Parliament's opinion is often taken into account. The Parliament is also frequently consulted although the Euratom Treaty does not formally require this. Bringing the European Parliament into the decision-making procedure can be a way of legitimatising legislation in the very sensitive field of nuclear energy (so-called in-put legitimacy).

However, the Member States in the Council are unwilling to bring in the European Parliament. For the Member States, using the Euratom Treaty means that they have more control through the Council, as the European Parliament does not participate. The Council generally takes the decision with a majority vote (generally qualified majority) under both the Euratom Treaty and the TFEU. One would then think that the nuclear-sceptic Member States would prefer the Euratom Treaty above using the EU Treaties. This does not seem to be the case.[24] If the EU Treaties are applied instead of the Euratom Treaty, the procedure becomes more 'democratic' (in the sense that the European Parliament is involved), but it also becomes more 'supranational' (if the involvement of the European Parliament can be said to constitute such a characteristic).

How have the Euratom acquis and the EU acquis evolved in relation to one another? Are they converging, diverging, or taking parallel paths? The answer depends on the policy area. In most areas, however, the acquis is converging. In the area of research, for example, there is a convergence between the Euratom research programmes and the EU research programmes: the Euratom's research programme is now formally referred to as a 'complement' to the EU's research programmes. In the case of research policy, convergence means marginalisation of the Euratom. When it comes to the exercise of competence, we can also note some trends towards divergence. In the area of investment promotion under the

[24] It should be pointed out that this dissertation has *not* investigated the Member States preferences in this sense, so this 'finding' is only speculative.

EU Treaties, for example, this was initially an area reserved for the Member States, but the EU has eventually become more and more involved. The Euratom's promotion of the nuclear industry is a contrasting development. Although the Euratom objectives state that it is about promoting the nuclear industry, this goal has only been partly realised.

Euratom at the Crossroads

As I conclude, I would like to say a few things about the dissertation's title: 'Euratom at the Crossroads'. As shown, the Euratom has been at a 'crossroads' almost since its adoption in 1957. It is in a constant state of existential crisis. As mentioned, many provisions have not been applied. Throughout this dissertation, I have shown that the Euratom is very close to the EU, although it is an anomaly. Should the Euratom continue to exist separately? From a legal point of view, is it needed enough to justify its survival? While the Euratom has some important functions, the EU could equally perform many of these functions. Given the expansion of the EU competences, there is no longer a need for the Euratom as a separate treaty.

For political reasons it has not been possible to amend the Euratom, although much has changed since the 1950s. The EU/Euratom has grown in size and the number of Member States has increased from 6 to 28, the economy has changed, and so has technology. Many of these changes were not foreseen when the Euratom Treaty was adopted. It is probably fair to say that the Euratom will continue to exist for many years. Any negotiations would be difficult. Negotiating the Euratom simultaneously with a major treaty reform of EU Treaties involves a risk. Although the Euratom is a rather soft instrument (at least in the way it is applied), its subject matter involves politically sensitive issues. The Euratom would probably have to be reformed separately. Of course, if the reform is to integrate the Euratom into the EU, this could not be done without also amending the EU Treaties.

It should also be pointed out that repealing policy areas is a relatively unknown exercise for the EU. For each major treaty revision, new policy areas have been

added to existing ones. However, seldom (if ever) have policy areas been repealed.[25] Therefore, it might be better to have 'dormant' competences than repealing them. The competences can then be used if a need would arise, although this seems very unlikely. An additional reason for not deleting competences is that this could be a 'contagious' enterprise: a major reform of the Euratom Treaty might not only open up endless discussions, but it could also open up for calls for reform of the EU Treaties.

Yet, there are several downsides to *not* reforming the Euratom, i.e., to preserve a Treaty that is only partially applied. If our aim is for the EU Treaties (including Euratom) to be 'living instruments' in the sense that they are to reflect reality and what is going on in practice, preserving the *status quo* is not preferable. This may be especially important if the Euratom is to be regarded as a constitutional document: constitutions are often thought of as expressions of the 'will of the people'. If provisions would be invoked again after a long 'dormant' period (in the case of Euratom, perhaps more than 50 years), this may cause some problems of legitimacy. Could it still be said that such 'dormant' provisions reflect the 'will' of the people? Or has time sapped the Euratom's democratic legitimacy?

Further, by not amending the Treaty, we have to rely on 'constitutional' (if the Euratom can be referred to as such) amendments by other means, i.e., by adjudication. This is not necessarily bad; evolution through adjudication can be a way of 'preserving' the role of the ECJ.[26] Moreover, some scholars argue that this is a sign that we, in fact, have a 'living constitution' that 'evolves, changes over time, and adapts to new circumstances'.[27] But relying on the ECJ in this manner can also be problematic, especially for the Member States with a strong positivist legal culture. Much more could be said about the legitimacy issue, but this will be done elsewhere. It suffices here to note that it is not unproblematic to keep the Euratom Treaty as it is. Of course, every major treaty revision could be seen as a

[25] But note Article 48(2) TEU, which only post-Lisbon stipulates that proposals may 'serve either to increase or to *reduce* the competences conferred on the Union in the Treaties'. Emphasis added.
[26] Kathleen M. Sullivan, 'Constitutional Amendmentitis', 23 *The American Prospect* 20 (1995).
[27] David Strauss, *The Living Constitution* (Oxford: Oxford University Press, 2010).

confirmation and a refreshment of the consent of the people; deciding not to amend the Treaty is also a choice.

If reform would be achieved, one solution is to bring the Euratom fully into the EU treaties. The Euratom would then, for example, become a separate Title in the TFEU. What difference, if any, would this make? For the Euratom, this would not change much (beyond the fact that some obsolete provisions would be deleted). If we would want the Euratom to continue to be *lex specialis*, a 'connection-clause' (cf. Article 40 TEU for the CFSP) would be needed.

But incorporating the Euratom into the EU Treaties could have some serious adverse effects: this would make the Euratom provisions more 'visible' and it would become all the more 'obvious' that the EU is 'founded on' provisions on nuclear energy cooperation. At a time when public support for the EU is in decline (or at least at a low ebb), such a reform would not be desirable; nuclear energy cooperation is far too sensitive issue an issue. If nuclear energy was a compelling vision in the 1950s, this is no longer the case. Recall here the discussion in Chapter 1 'A Brief History'. In the 1950s, nuclear energy was seen as the key to the future; it was hailed as a universal panacea that would bring peace and pave the way for an industrial revolution. But the Euratom Treaty no longer has this 'messianic' quality.[28] Moreover, incorporation would make the already long TFEU even longer (and make them generally more detailed).

Future Research

I shall now conclude with some thoughts for future research. There remains much to study in this area. In addition to the already-mentioned issue of legitimacy (briefly touched upon above), more research is needed to find a more perspicuous answer to the legal regime issue. As pointed out, one reason why this question could not be easily answered was that we do not have a sufficiently clear conception of a legal regime. There is an important discussion on the

[28] J.H.H. Weiler, 'Europe in Crisis – On "Political Messianism", "Legitimacy" and the "Rule of Law"'(2012) *Singapore Journal of Legal Studies* 248–68.

relationship between the EU legal orders and national legal orders, but less work has been done on conceptualising legal orders as such in the international (and transnational) sphere.

Future research could also be directed towards complementing the present study by examining other intra-EU relationships and by using the same methodology as here, e.g., the relationship between the former ECSC Treaty and the EEC Treaty (and the Euratom Treaty) or the relationship between the EU Treaties and the new ESM Treaty. This could also offer further insights into our present study.

We can also note that in each of the different substantive chapters (Chapters 3 to 6) there are questions that could be developed further. One important issue concerns nuclear liability. Another issue concerns competition law and the use of State aid for the nuclear industry. Whatever else the future may hold, nuclear energy will play a role in Europe and in the world for many years to come. Of this, we can be certain.

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